Chapter 3.0 Affected Environment

3.1 Introduction

This chapter of the Environmental Assessment (EA) describes the existing environmental conditions of the potentially affected geographic area where the Preferred Alternative would occur.

As described in previous chapters, the Gary/Chicago International Airport (Airport or GYY) is proposing the development of a multi-tenant air cargo logistics area on the northwest side of the Airport with room to expand. The air cargo logistics area will also include the utility infrastructure to comply with the needs for each tenant including apron electrical lighting, aircraft gate power, IT/communications infrastructure, truck and/or hydrant fueling system, fire protection, water, sanitary sewer, and storm sewer infrastructure.

For detailed discussion of the Preferred Alternative, see **Chapter 2.0 Alternatives Considered**. For additional details and justification of the need for the project, see **Chapter 1.0 Purpose and Need**.

As described in **Chapter 1.0 Purpose and Need**, the Airport's proposed project includes the following components:

- Eight aircraft parking positions (Boeing 767)
- Approximately 750,000 square feet of apron and ground support equipment (GSE) pavement
- Approximately 135,000 square feet of taxiway connector pavement
- Approximately 180 truck parking spaces
- Approximately 570 employee parking spaces
- Approximately 220,000 square feet of air cargo facility space
- Security fencing

3.2 Early Agency and Public Coordination

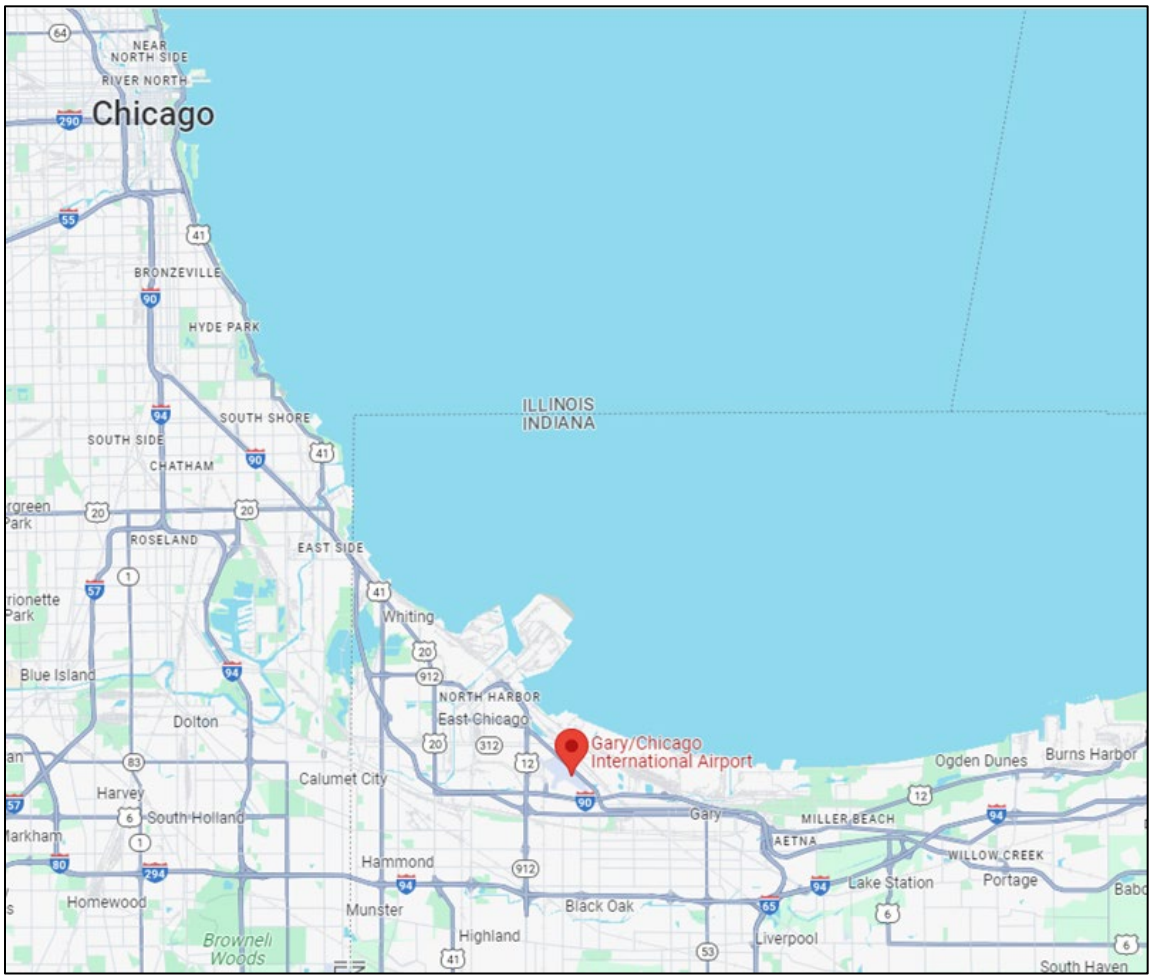
Resource agencies and Native American tribes with potential jurisdiction over or interest in the Proposed Action were contacted at the beginning of the project and given the opportunity to provide comments. **Appendix C – Early Agency Coordination** contains a copy of the distribution list, early coordination letters and maps sent to each agency and organization and documentation received, including response letters. Specific information and direction received from responding agencies is noted and addressed in the appropriate resource sections where applicable.

3.3 Project Location and History

Gary is located in Northern Indiana, 25 miles southeast of downtown Chicago, Illinois, and three miles northwest of downtown Gary, Indiana. The Airport encompasses 993 acres and generally sits at an

elevation of 596 feet above sea level. Northwest of the Airport is the City of East Chicago, and the City of Hammond is located to the southwest. The Airport's southern border runs parallel with Interstate 90 (Indiana Tollway), a major thoroughfare of the region (see **Figure 3.0 Vicinity Map**).

Figure 3.0 Vicinity Map



Source: Google Maps, 2024

The Airport's origins date back to 1939 when the City of Gary saw a need for a new airport to support its growth. The City of Gary established a Board of Aviation Commissioners, which purchased the current airport site. Shortly thereafter, however, World War II delayed the site's development, and the land was donated to the federal government in 1943 to be used for a synthetic rubber plant. Following the war, the federal government returned the land to the City of Gary in 1947 for airport development.

GYY had limited commercial passenger service in the 1950s, while Chicago Midway Airport (MDW) was the dominant airport in the region. As activity increased and larger jet aircraft were introduced, Chicago O'Hare International Airport (ORD) opened in 1963 to provide the necessary expanded airport facilities to accommodate demand. During this period, Chicago area airports became the busiest in the world. This also coincided with the completion of much of the interstate highway system, including the Tri-State Tollway (I-294), which allowed for quick and efficient travel between northwest Indiana and Chicago, including ORD.

The interstates also permitted easy access to GYY by Illinois residents, who continue to use the facility for business aviation purposes. Most based aircraft owners at GYY live and work in Illinois, many in downtown Chicago.

In 1995, the Cities of Chicago and Gary entered into an agreement. This agreement, referred to as the Compact, establishes GYY as Chicago's third airport and allows Passenger Facility Charges (PFCs) collected at ORD to be used for projects at GYY. Additionally, the Compact formed the Gary/Chicago Regional Airport Authority (GCRAA) comprised of a 12-member Board of Directors. The Board of Directors are appointed as follows: five members appointed by the City of Gary, five members appointed by the City of Chicago, one member appointed by the state of Indiana, and one member appointed by the state of Illinois. GCRAA coordinates and develops plans for ORD, MDW, and GYY.

The Gary/Chicago International Airport Authority (GCIAA) has a separate Board of Directors that manages GYY. The GCIAA is a municipal corporation, separate and distinct from the City of Gary and Lake County. The Board of Directors is comprised of seven members: four appointed by the mayor of the City of Gary; one each appointed by Lake and Porter Counties; and one appointed by the governor of the state of Indiana.

Commercial passenger service has been intermittent at GYY since 2000, with passenger activity peaking at 27,000 annual enplanements in 2004. Pan Am, Southeast, Pace Aviation, Casino Express, and Allegiant have all provided brief commercial air service at the Airport during this period. Following Allegiant's departure in 2013, the Airport became a general aviation (GA) and corporate facility.

The Airport has received federal funds since 1949 for airport construction and development. The City of Gary has also used general obligation bonds to finance terminal development and other facilities, which allowed GYY to develop in accordance with the needs of business and corporate aviation. In 2005, the Northwest Indiana Regional Development Authority dedicated $20 million to extend the Airport's primary runway, Runway 12/30. The Federal Aviation Administration (FAA) approved the project that year and provided a grant that contributed approximately $57.8 million. The runway extension was completed in July 2015. This added 1,859 feet of pavement, making the total length of the runway 8,859 feet. Additionally, the Airport has conducted numerous other improvement projects, including an apron overlay and expansion, new runway lighting, purchase of new snow removal equipment, construction of a new maintenance equipment garage and administrative offices, construction of aircraft hangars, terminal renovation, improvements to airport drainage, and vegetation removal.

In January 2014, the City of Gary and the GCIAA entered into a public-private partnership with AFCO and AvPorts for the management of the Airport and the development of surrounding land. This partnership maintained public oversight over the Airport while allowing a private entity to operate the Airport and spur economic growth. This partnership ended in June 2022 when the GCIAA announced that it was positioned to independently manage and advance the Airport's growth.

3.4 Existing Airport Facilities

The discussion of existing facilities includes both airside and landside infrastructure that is critical to supporting aviation activity at GYY. Major facilities at the Airport include runways, taxiways, navigational

aids (NAVAIDs), hangars, aprons, fixed base operators (FBOs), support facilities, and the Indiana National Guard facility. For a graphic representation of these facilities, see **Figure 3.1 Existing Airport Layout.**

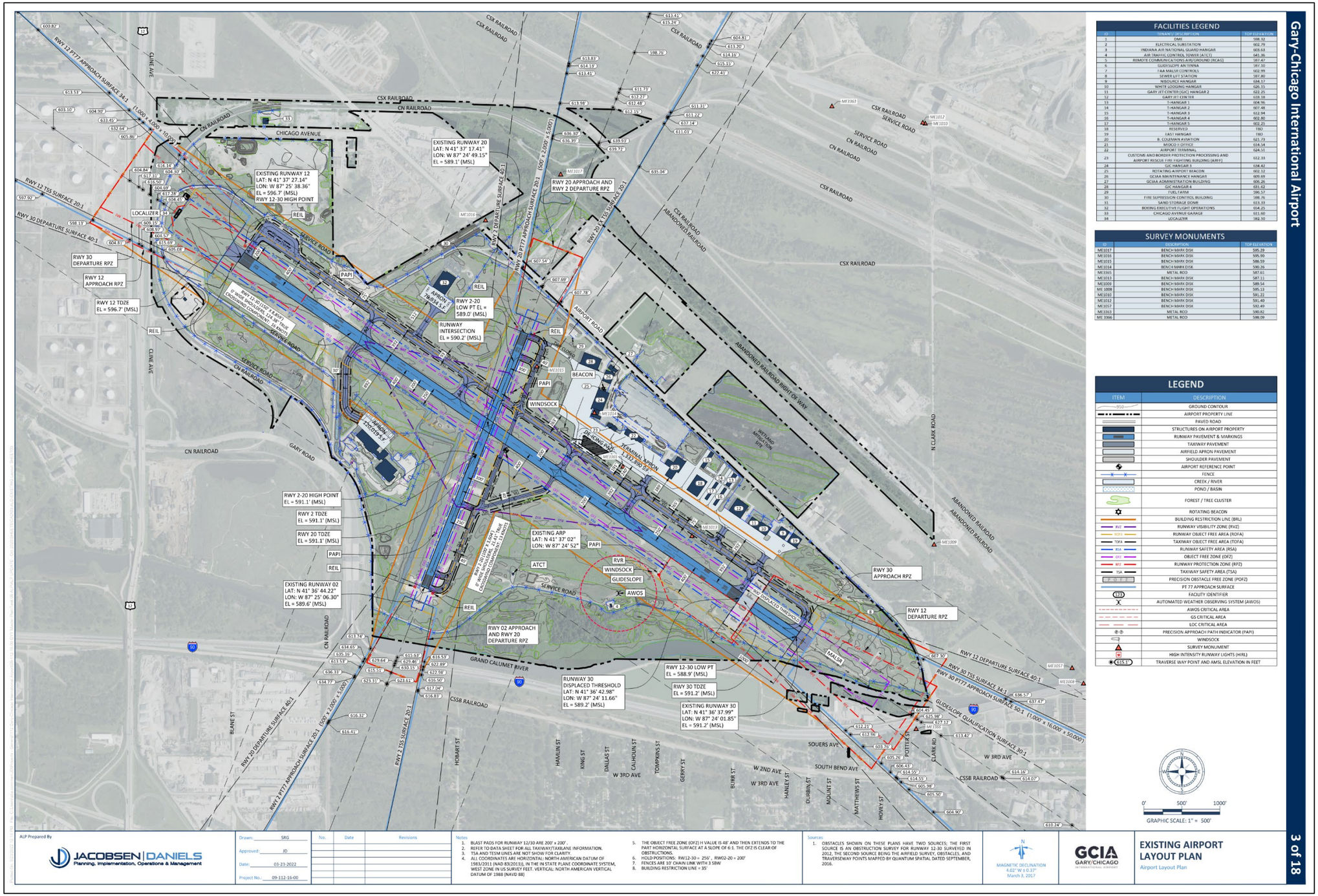
The Airport is equipped with two runways: Runway 12/30 and Runway 2/20. As explained above, Runway 12/30 is the primary runway and the most heavily used. The runway is 8,859 feet long and 150 feet wide, with a northwest-southeast orientation. This runway is designed for Airplane Design Group (ADG) C-III. Runway 2/20 is the crosswind runway with an ADG B-II designation and measures 3,604 feet long with a width of 100 feet. Light GA aircraft primarily use Runway 2/20 due to its length and operational capabilities; however, larger aircraft also use the runway when crosswinds are not favorable for operations on Runway 12/30.

The taxiway system provides aircraft access throughout the airfield. Taxiways A and B are two full-length parallel taxiways serving Runways 12/30 and 2/20, respectively. Taxiway A has a width of 75 feet and is located north of Runway 12/30. The northern portion of Taxiway A from Taxiway A2 to Taxiway A1 is laterally offset from the runway by 400 feet. The remaining portion of the runway, from Taxiway A2 south to Taxiway A8, is offset from the runway by 392 feet. Seven taxiways connect Taxiway A to Runway 12/30. Taxiway B has a width of 40 feet and is located east of Runway 2/20. The majority of Taxiway B is laterally offset from the runway by 300 feet. A small portion of the taxiway to the south is offset by 250 feet but is planned to be offset to 300 feet when rehabilitated in the future. Six taxiways connect Taxiway B to Runway 2/20. Taxiway F serves the Indiana National Guard facility.

Visual NAVAIDS at GYY include:

- A rotating beacon
- A lighted wind indicator
- High Intensity Runway Lights (HIRL) for Runway 12/30
- Centerline lights for Runway 12/30
- Medium Intensity Runway Lights (MIRL) for Runway 2/20
- A Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) at the approach end of Runway 30
- Runway End Identifier Lights (REILs) at the approach end of Runway 12 and at both ends of Runway 2/20
- A 4-light Precision Approach Path Indicator (PAPI) at both ends of Runway 12/30
- A 2-light PAPI at both ends of Runway 2/20.

Figure 3.1 Existing Airport Layout



Source: Jacobsen | Daniels

In addition to visual NAVAIDs, the Airport is also equipped with electronic NAVAIDs to help pilots navigate in inclement weather. Existing electronic NAVAIDs include an Instrument Landing System (ILS) approach for Runway 30 and Area Navigation (RNAV) Global Positioning System (GPS) approaches for all four runway ends. In addition, GYY has an Automated Weather Observing System (AWOS) that allows pilots to obtain current airport information via communication radios, including active runway, wind speed and direction, altimeter setting, and other pertinent operational data.

Two FBOs located on the airfield provide a range of aviation services for GA users. Gary Jet Center (GJC) provides fueling, maintenance, hangar parking, and an assortment of flight crew amenities primarily to corporate jet activity. GJC's main building is located east of GYY's 45-unit T-hangar complex and is accessible via Airport Road. GJC has four hangars at the Airport. The apron space supporting GJC's operations is considered common-use and is available to all tenants to use on a first-come basis.

B. Coleman Aviation provides services and amenities ranging from catering and fuel to pilot lounges and crew rest areas. Additionally, B. Coleman provides maintenance services for its customers and manages six T-hangars and a private hangar on behalf of the Airport. B. Coleman is located east of the terminal building and is accessible via the Airport's terminal access roadway. The FBO has one main building with a large hangar and three floors of customer service area, operations support, and office space.

Support facilities at GYY include the Aircraft Rescue and Firefighting (ARFF) facility, Customs and Border Protection (CBP) facility, airport administration building, airport maintenance facility, fuel farm, and Airport Traffic Control Tower (ATCT). The ARFF facility is located immediately west of the passenger terminal and occupies the building's eastern half. The ARFF area consists of three equipment bays, an office, dorms, and break room spaces. CBP occupies the western half of the building. The CBP facility allows FBO customers to arrive directly from international locations without having to stop elsewhere to clear customs.

The Airport's day-to-day administrative and operational functions are accommodated at the airport administration building. This building is located immediately west of the Airport's main entrance roadway to the terminal and is directly connected with the Airport's maintenance facility to the south. The administration building features a large conference room, office spaces for staff, storage facilities, and break rooms. Parking is adjacent to the building on the north and east.

The airport maintenance facility is located between the administration building and GJC Hangar 3 and is directly connected to the administration building by a hallway. The facility consists of a single story, high-bay set of back-to-back metal buildings with four large equipment bays. The facility stores snow equipment, tractors, mowers, pickup trucks, and a snow broom. Offices, maintenance areas, shops, and parts storage areas are situated around the perimeter of the equipment bays. The paved area adjacent to the south side of the facility is also used for equipment and materials storage.

The Airport's fuel farm is located on the north side of the Airport along the north perimeter road, adjacent to GJC's Hangar 2. The fuel tanks are all above ground, and although the Airport owns all six tanks, B. Coleman Aviation operates two of them. The fuel farm contains tanks for Jet A and 100 low lead (LL) aircraft fuel types, as well as two smaller tanks for auto and diesel fuel. In all, the fuel farm contains storage for 120,000 gallons of Jet A and 24,000 gallons of 100LL fuel.

The ATCT is located south of Runway 12/30 and east of Runway 2/20. The ATCT provides local control (runways), flight data, and ground control (taxiways). The tower's control extends from the surface to 3,000 feet above mean sea level (MSL) with a five-statute mile radius from the center of the Airport. Controllers must get permission for instrument flight rules (IFR) departures and clearances from the Chicago Air Route Traffic Control Center. The ATCT operates between the hours of 5:00 a.m. and 10:00 p.m. daily.

Lastly, GYY is home to the Indiana National Guard's Army Aviation Support Facility. This facility, located south of Runway 12/30 and west of Runway 2/20, services three aviation units utilizing three UH-60 Blackhawks and two 0H-58 Kiowa helicopters. The hangar portion of the facility is comprised of three heated maintenance bays and two unheated aircraft storage bays. The adjoining office area houses administrative areas, an aviation life support equipment shop, lockers, restrooms, and training areas.

3.5 Air Quality

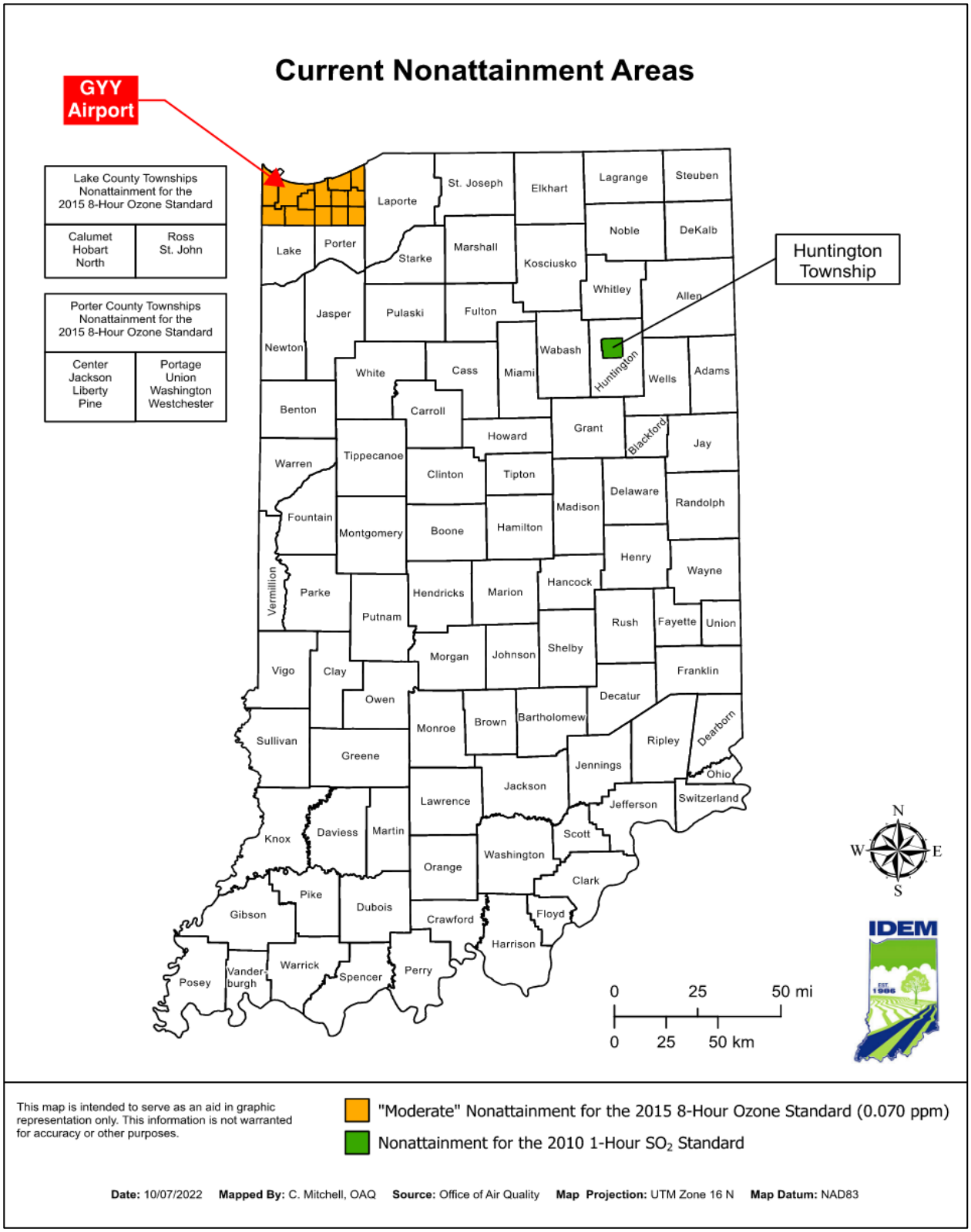
An air quality analysis is the measure of the air's composition in terms of pollutant concentrations. Air quality is regulated out of concern for human health (especially the health of children, the elderly, and those with certain health conditions). Poor air quality can also affect crops and vegetation, as well as buildings and other facilities. The United States Environmental Protection Agency (EPA) regulates air quality under the Clean Air Act (CAA) described in 42 U.S.C. §§ 7401- 7671q. The EPA regulates six common air pollutants under the CAA, referred to as criteria pollutants, to permissible levels via standards called National Ambient Air Quality Standards (NAAQS). In addition to the EPA, the Indiana Department of Environmental Management (IDEM) and the Northwestern Indiana Regional Planning Commission (NIRPC), which is the Metropolitan Planning Organization (MPO) for the Lake, Porter, and LaPorte Counties region, also address air quality in the project area.

Areas that have ambient concentrations of criteria pollutants below the NAAQS are designated as "attainment areas." Areas with ambient criteria pollutant concentrations above the NAAQS are designated as "nonattainment areas." Nonattainment areas must have an applicable State Implementation Plan (SIP) that establishes mitigation measures and timelines required to lower pollutant levels below the NAAQS. In addition, aviation-related federal projects planned for nonattainment areas must conform to the applicable SIP, known as "General Conformity."

The Airport is located in Calumet Township in Lake County, Indiana. According to the IDEM, Calumet Township, which is in the northern portion of Lake County, is designated as a "moderate" nonattainment area for the 2015 8-hour ozone standard. **Figure 3.2 Air Quality Map** shows a map of the current nonattainment areas in Indiana. Also, according to the EPA's Green Book National Area and County-Level Multi-Pollutant Information, Lake County (either the whole county or a portion) is a maintenance area for the following pollutants:

- 8-Hour Ozone (2008) – Whole County
- Carbon Monoxide (1971) – Part of County
- PM-10 (1987) – Part of County
- Sulfur Dioxide (1971) – Part of County

Figure 3.2 Air Quality Map



Source: Indiana Department of Environmental Management

3.6 Biological Resources (Including Fish, Wildlife, and Plants)

Biological resources include plants (vegetation), animals (wildlife), and the habitats where they occur. Habitats are the resources and conditions that support the continuous existence of plants or animals in a particular area. Together, biological resources form ecosystems, which are dynamic and respond over time to changes in the environment, whether natural or human-induced. Biological resources provide aesthetic, recreational, and socioeconomic values to society, as well as being valuable in their own right. Accordingly, federal and state laws and statutes exist to protect certain species and habitats of special importance.

Early agency coordination was conducted with federal and state regulatory agencies with interest or jurisdiction over biological resources in the project area at the onset of this project. Agency response letters are found in **Appendix C – Early Agency Coordination**. For details on the field surveys and biological findings in the project area, including U.S. Fish and Wildlife Service (USFWS) consultation, see **Appendix D – Biological Resources**.

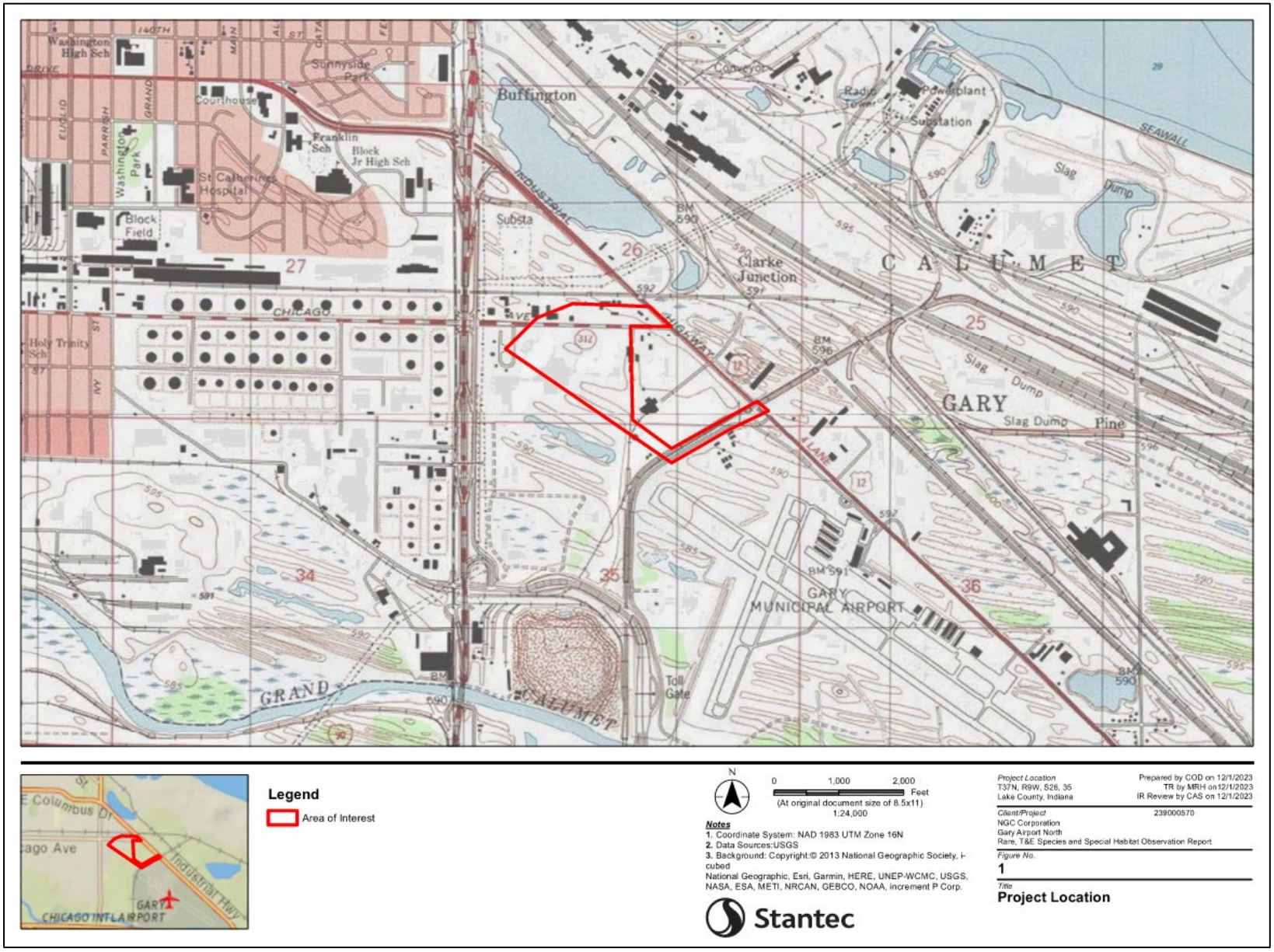
3.6.1 Endangered and Threatened Species

The Endangered Species Act (ESA) (16 U.S.C. §§1531-1544) and subsequent amendments require the conservation of federally listed threatened and endangered plant and animal species, and critical habitats in which they are found. A species is considered endangered if it is in danger of extinction throughout all or a significant amount of its range. Threatened species are defined as those that are likely to become endangered in the foreseeable future. The USFWS administers the ESA primarily for land and freshwater species and designates critical habitat for species protected under the ESA. Section 7 of the ESA requires all federal agencies to consult with the USFWS, as applicable, before initiating any action that may affect a listed species or designated critical habitat. Candidate species, which may be listed as threatened or endangered in the future, are not provided any statutory protection under the ESA but conservation efforts are encouraged.

At the state level, the Indiana Department of Natural Resources (IDNR) protects threatened, endangered, and nongame species from being taken, possessed, transported, exported, processed, sold, or offered for sale or shipment under the Nongame and Endangered Species Conservation Act. The Indiana Code defines “take” as to harass, hunt, capture, or kill; or attempt to harass, hunt, capture, or kill (IN Code § 14-22-34-12 (2024)). An environmental review must be completed for the project area to identify whether project actions may affect any threatened and endangered species. The IDNR may require permits if impacts are identified.

To determine the presence of threatened and endangered species and evaluate potential impacts from the proposed project at the federal and state level, a qualified biologist conducted a site visit in October 2023 within a 68-acre Project Study Area (PSA) in the northwest portion of the Airport, shown in **Figure 3.3 Biological Resources Project Study Area**.

Figure 3.3 Biological Resources Project Study Area



Source: *Rare, Threatened, and Endangered Species and Special Habitat Observation Report, Gary Airport – North Area, Lake County, Indiana*, November 2023, prepared by Stantec

Project Study Area Description

The PSA is a combination of industrial land and abandoned railway and is comprised primarily of three different habitats: emergent wetland, upland sandy prairie, and dune and swale.

Emergent wetland makes up the primary habitat within the 68-acre PSA. The wetland is a semi-mature wetland habitat that consists of numerous plant species with a wetland indicator status of facultative or wetter. The PSA consists of two large wetland complexes that surround a gravel parking lot and debris field to the southwest and southeast, disconnected by a drive. The emergent wetland then extends to the southeast where they are disconnected from the dune and swale habitat in the southeast corner of the PSA. Typical and expected wetland plants that make up the wetland plant community include low quality and invasive plants such as reed canary grass (*Phalaris arundinacea*), large amounts of common reed (*Phragmites australis*), and hybrid cattail (*Typha x glauca*). While the wetlands are dominated by tall emergent invasive plants, the understory of the emergent wetlands contains native plants.

The emergent wetlands within the PSA feature a robust population of various sedges, rushes, and wetland grasses native to the local plant communities, interwoven between and within the canopy of the taller invasive common reed and hybrid cattail. Some native species include green bulrush (*Scirpus atrovirens*), common spikerush (*Eleocharis palustris*), devil's beggarticks (*Bidens frondosa*), rice cut grass (*Leersia oryzoides*), and bluejoint grass (*Calamagrostis canadensis*). While the plant community is not considered biologically robust or particularly diverse in its current state, the presence of these species indicates that, while not currently managed as a native wetland restoration, the potential for rare or endangered species is possible, due to the nearby proximity of IDNR-managed dune and swale wetlands, in combination with regional hydrology and the adjacent degraded dune and swale habitat.

Dune and swale habitat is unique to the sandy coastal shorelines of the Great Lakes. As the name of the habitat suggests, this complex system's most notable feature is the parallel rolling upland dune ridges with low wetland swales that often feature potential for varied plant diversity. This higher-than-normal potential for diversity is directly related to the continuously changing lake levels. As the nearby Lake Michigan water levels fluctuate, so do the water levels of the swales due to their connectivity to the Lake Michigan water table. This direct connection to Lake Michigan groundwater brings with it the potential for varied seed banks from surrounding protected and ecologically diverse lands, thus explaining the potential for randomized plant diversity within the wetlands. The presence of intact dune and swale habitat to the north, across Airport Road, indicates that the geological water flow attributes of a dune and swale habitat could be present, which increases the potential for diversity in both local flora and fauna.

Approximately 10 acres within the PSA are a mix of upland sandy prairie and degraded dune and swale habitat with limited connectivity to the greater area of open sandy prairie and dune and swale habitat located within other areas of Airport property. Within these areas, rolling upland dune buffers are present with wetland swales running parallel and in between the upland dune buffers. Vegetation is limited in these areas. Upland species include but are not limited to little bluestem (*Schizachyrium scoparium*), Indiangrass (*Sorghastrum nutans*), lance leaf coreopsis (*Coreopsis lanceolata*), and switch grass (*Panicum virgatum*). Limited invasive woody plants occur within this upland area due to the consistent regimen of mowing open areas. The dune and swale habitat located in the southwest corner of the PSA contains higher diversity

than in other dune and swale habitats on Airport property. Lady's tresses orchids (*Spiranthes sp.*) were noted within the swales of the southeast wetlands but were not identified down to species level.

An abandoned railway runs adjacent to the Indiana Land Trust #6365 property and falls partially within the PSA. The abandoned railway substrate is primarily limestone gravel and sand with upland prairie plants such as little bluestem grass and Indiangrass, with the invasive non-native spotted knapweed (*Centaurea stoebe*) and mugwort (*Artemisia vulgaris*) dominating the community.

A portion of the PSA across Airport Road contains a stand of dead ash tree (*Fraxinus spp.*) snags, all of which exceed a diameter at breast height of 10 inches or more. Loose hanging bark intact on these trees, along with their proximity to woodlands and wetlands, indicates the potential for bat roosting habitat.

3.6.2 Migratory Birds

The Migratory Bird Treaty Act of 1918 (MBTA) (16 U.S.C. § 703 et seq.) and its amendments are the main drivers for the protection of migratory birds in the United States. Executive Order 13186*: Responsibilities of Federal Agencies to Protect Migratory Birds,* also obligates all federal agencies that engage in or authorize activities that might affect migratory birds to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat.

In a biological sense, a migratory bird is an avian that has a seasonal and somewhat predictable pattern of movement. Generally, migratory birds are defined as all native birds in the United States, except those non-migratory species such as quail and turkey that are managed by individual states.

The affected environment for migratory birds is the same as the affected environment for endangered and threatened species, as described in **Section 3.6.1 Endangered and Threatened Species**.

3.7 Coastal Resources

The Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451-1466) established the Federal Coastal Zone Management Program to encourage and assist states in preparing and implementing management programs to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone." In addition, the Coastal Barrier Resources Act of 1982 (16 U.S.C. § 3501 et seq.) requires that no new federal expenditures or financial assistance may be made available for construction projects within the boundaries of the Coastal Barriers Resource System. Executive Order 13089, Coral Reef Protection requires federal agencies to "identify any actions that might affect coral reef ecosystems, protect and enhance the conditions of these ecosystems, and ensure that the actions carried out, authorized, or funded by federal agencies will not negatively impact or degrade coral reef ecosystems."

The Lake Michigan Coastal Program (LMCP) was developed to support coordination and partnerships among local, state and Federal agencies and local organizations to preserve, protect, restore, and where possible, develop coastal resources in Indiana's Lake Michigan watershed. The LMCP is based on Indiana's existing laws and does not create any new laws or requirements. Management of Lake Michigan coastal resources in Indiana is accomplished through several mechanisms by multiple entities. A listing of

the relevant state constitutional provisions, laws, and judicial decisions that apply to the land and water uses has been identified as a part of the Indiana LMCP. In addition, the agencies that administer the applicable laws and guidance documents were identified as a part of the Indiana Lake Michigan Coastal Program Environmental Impact Statement (EIS), dated April 2002. The various subject matters of the relevant laws and provisions have been grouped into ten topics:

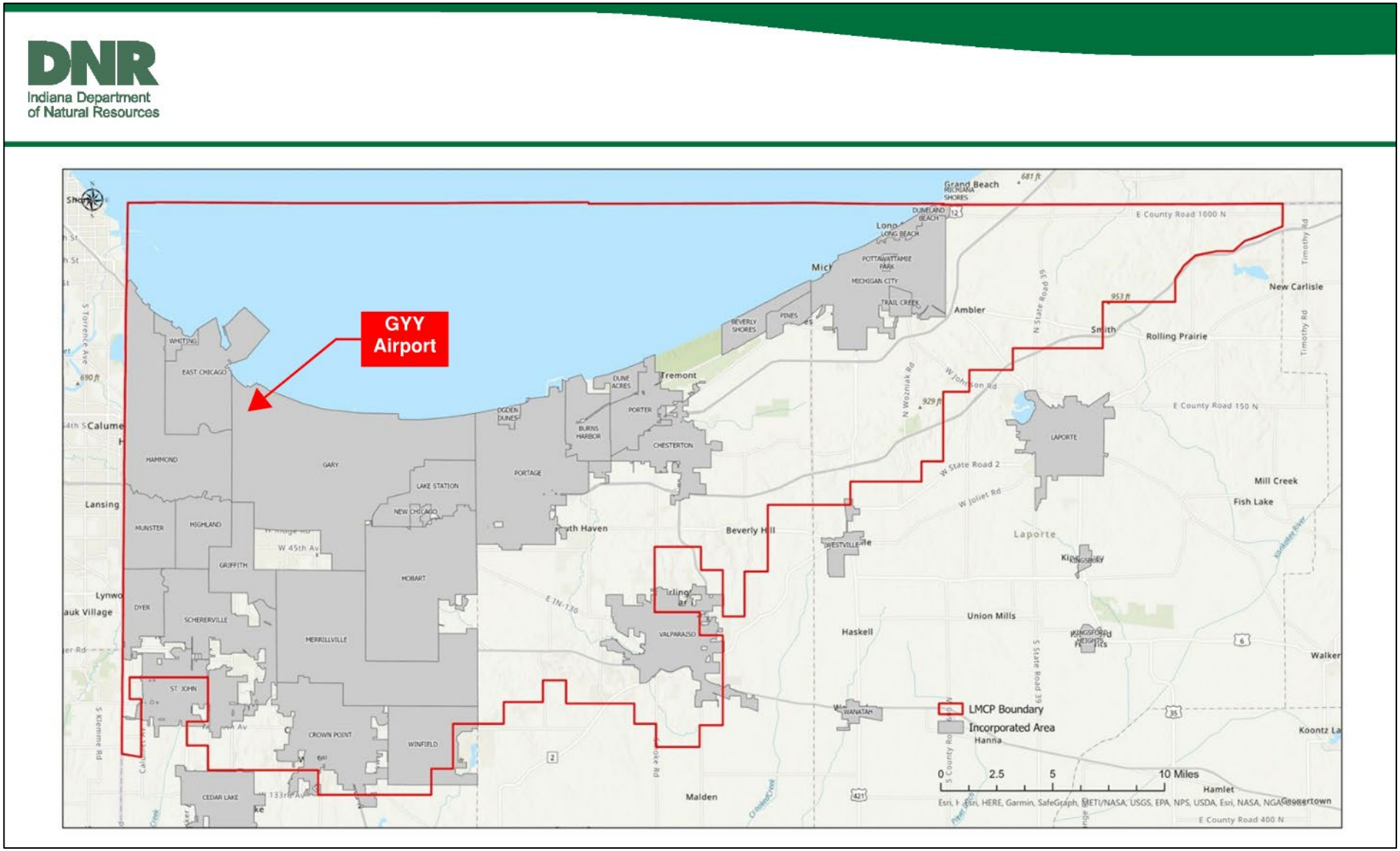
- Procedural Framework
- Coastal Hazards
- Water Quality
- Water Quantity
- Natural Areas, Fisheries, Wildlife, and Native and Exotic Species
- Recreation, Access, and Cultural Resources
- Economic Development
- Pollution Prevention, Recycling, Reuse, and Waste Management
- Air Quality
- Property Rights

As a part of the EIS, a matrix was developed for each subject area to clearly identify the existing state statutes or regulations which are administered locally according to criteria or standards established by state law, or directly by the state through a network of agencies. The mechanisms that contribute toward the effective management of Indiana's coastal resources when combined with the laws, such as guidance documents, programs, and funding opportunities in each of these subject areas were also identified as a part of the EIS.

In April of 2002, upon conclusion of the EIS, Indiana submitted its Lake Michigan Coastal Program to the Office of Ocean and Coastal Resource Management of the National Oceanic and Atmospheric Administration (NOAA) for approval pursuant to section 306 of the CZM Act. NOAA approved the LMCP on August 5, 2002.

GYY is approximately 1.4 miles south of the shore of Lake Michigan. A review of maps for the LMCP shows that the Airport is within LMCP boundaries (**Figure 3.4 Lake Michigan Coastal Program Map**). However, the USFWS Coastal Barrier Resources Mapper online database shows the project area is not located within or near a resource that is part of the Coastal Barrier Resources System.

Figure 3.4 Lake Michigan Coastal Program Map



Source: Indiana Department of Natural Resources

3.8 Department of Transportation Act, Section 4(f)

Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303) requires that the Secretary of Transportation not approve any program or project that requires the use of any publicly owned land unless there is no feasible and prudent alternative to the use of such land. Common Section 4(f) resources include:

- Public parks.
- Recreation areas.
- Wildlife and waterfowl refuges of national, state, or local significance.
- Land from a historic site of national, state, or local significance as determined by the officials having jurisdiction.

There are no parks, recreation areas, cemeteries, schools with playgrounds or athletic fields, or wildlife or waterfowl refuges within the project area. Joseph L. Block Middle School, Sunnyside Park, and DuPont East Chicago Natural Area are within a one-mile radius of the project area. The locations of these resources relative to the project area are shown in **Figure 3.5 Section 4(f) Resources**.

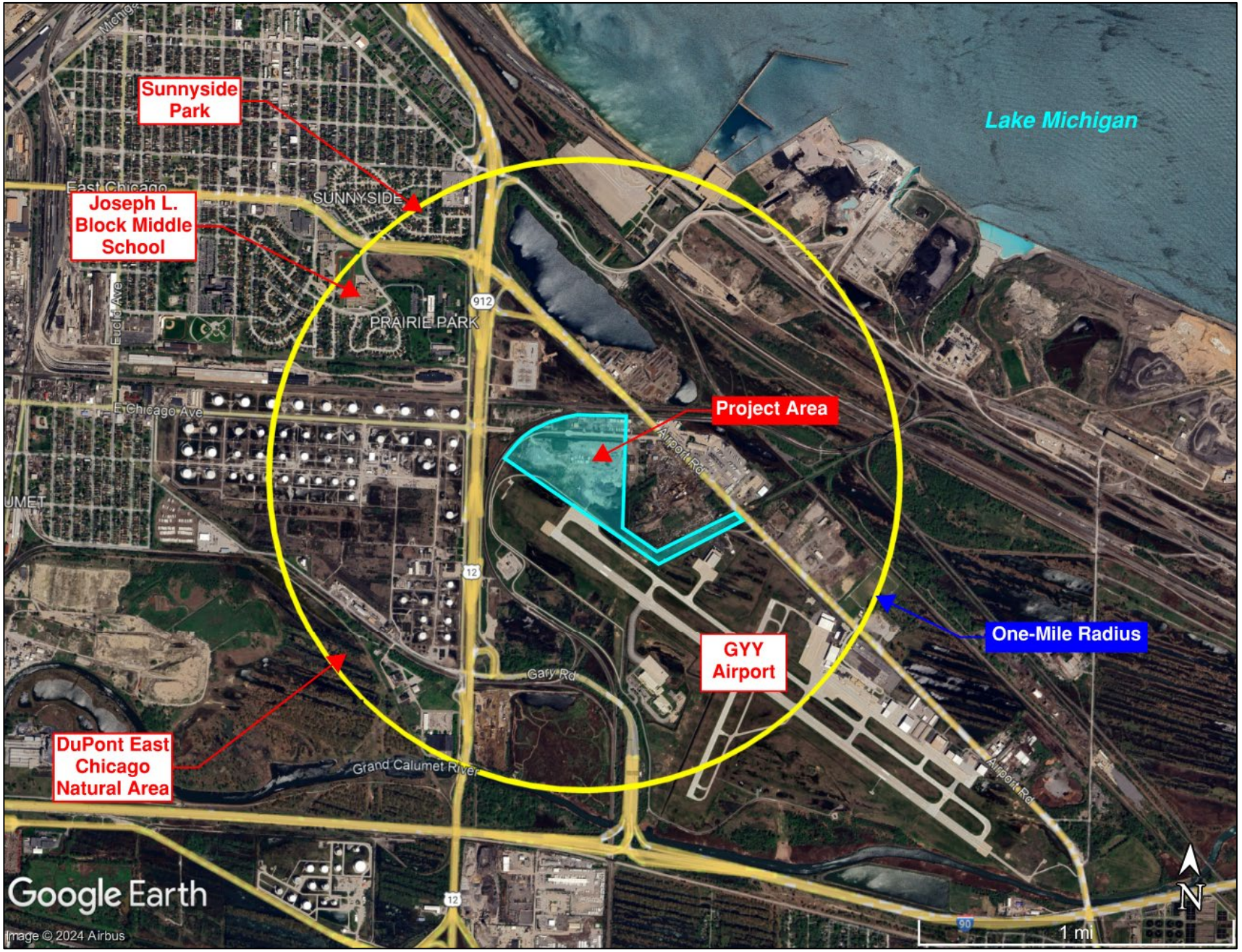
3.9 Farmlands

The Farmland Protection Policy Act of 1981 (FPPA) described in 7 U.S.C. §§ 4201-4209 was enacted to minimize the extent to which federal actions and programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. Per FPPA, “farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.”

Prime farmland has the best combination of physical and chemical characteristics for producing food, forage, fiber, and oilseed crops. Unique farmland is defined as land other than prime farmland that is used for the production of specific high-value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruits, and vegetables. Any federal action that may result in conversion of farmland to a non-agricultural use requires coordination with the U.S. Department of Agriculture’s (USDA) Natural Resource Conservation Services (NRCS).

A review of protected farmland classification maps available from the NRCS does not indicate the presence of any protected farmlands within the project area. See **Appendix E – Farmland** for the farmland classification map.

Figure 3.5 Section 4(f) Resources



Source: 2024 Google Earth with labeling by Mead & Hunt, Inc.

3.10 Hazardous Materials, Solid Waste, and Pollution Prevention

Hazardous materials are those that can pose a risk to health, safety, and property, including hazardous wastes and hazardous substances as well as other materials. Hazardous materials are regulated under several statutes, including the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601-9675), the Resource Conservation and Recovery Act (RCRA) described in 42 U.S.C. §§ 6901-6992k, and the Toxic Substance Control Act (15 U.S.C. §§ 2601-2697). Solid waste is discarded material that falls into specific regulatory definitions and is regulated under RCRA. Pollution prevention refers to efforts to avoid, prevent, or reduce discharges and emissions of pollutants.

The EPA's *NEPAssist* tool was reviewed to determine the potential for hazardous waste contamination in and near the project area. *NEPAssist* lists two "EPA Facilities" within the project area and several others in the vicinity of the project area. Maps of these facilities are provided in **Appendix F – Hazardous Materials**.

Both EPA facilities within the project area are registered RCRA facilities. The first facility listed is at 7360 W Chicago Avenue, with the City of Gary shown as the owner. The address of the second facility is 6980 Chicago Avenue, with Solar Environmental, Inc. listed as the owner. Designation as an RCRA facility indicates that the subject organization generates hazardous waste, must manage this waste accordingly, and must report to the EPA.

In addition, a review of IDEM's Interactive Map application shows a portion of the project area is listed as an active brownfield site associated with NBD Bank Trust – Zaleski Properties. A brownfield is a parcel of real estate that is abandoned or inactive or may not be operated for its appropriate use. The expansion, redevelopment, or reuse of the property is complicated because the presence or potential presence of a hazardous substance, a contaminant, petroleum, or a petroleum product may pose a risk to human health and the environment.

The project area also contains three medium priority leaking underground storage tanks (LUSTs) within its boundaries. For safety, tanks containing petroleum products and other hazardous substances are placed underground to lessen the risk of explosion. LUSTs and their associated piping can release chemical vapors into buildings or contaminate soil, surface water, and ground water. The LUSTs within the project area are associated with PGT Trucking Incorporated (7212 Chicago Avenue), Riechmann Enterprises Incorporated (7200 Chicago Avenue), and PI & I Motor Express (7000 Chicago Avenue).

IDEM's Interactive Map also shows other environmental sites adjacent to but outside the project area. Immediately east of the southern portion of the project area are two sites with an environmental restrictive covenant (ERC). ERCs are a type of institutional control used to apply land use restrictions to properties. For example, a landowner may agree to not develop a site for residential use and only allow commercial or industrial development. The first ERC site is Pure Platinum LLC (6633 W Industrial Highway) and the other is Conservation Chemical Company (6500 W Industrial Highway). See **Figure 4.0 Existing ERCs in the Project Vicinity** in **Chapter 4.0 Environmental Consequences** for a summary of the ERC locations relative to the project area.

Immediately east of the northern portion of the project area is a site where hazardous waste corrective action has been completed. IDEM's Interactive Map identifies the organization associated with this site as Luria Bros & Co Inc. (6633 W Industrial Highway).

Lastly, an active brownfield site associated with Refax (6200 Industrial Highway) is located across Industrial Highway from the easternmost portion of the project area.

Appendix F – Hazardous Materials provides a map showing the locations of the environmental sites in IDEM's Interactive Map application relative to the project area.

3.11 Historical, Architectural, Archeological, and Cultural Resources

Historical, architectural, archeological, and cultural resources include a variety of sites, properties, and facilities related to activities and societal and cultural institutions. Such resources express past and present elements of human culture and are important to a community. Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 300101 *et seq*.) requires federal agencies to consider the effects their actions may have on these properties.

According to FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions, two basic laws apply to this impact category. The first law, the NHPA, as amended, "[r]ecommends measures to coordinate Federal historic preservation matters, to recommend measures to coordinate Federal historic preservation activities and to comment on Federal actions affecting historic properties included in or eligible for inclusion in the National Register of Historic Places."

The second law, the Archeological and Historic Preservation Act of 1974, "[p]rovides the survey, recovery, and preservation of significant scientific, prehistorical, historical, archeological, or paleontological data when such data may be destroyed or irreparably lost due to a Federal, Federally licensed, or Federally funded project."

An archeological reconnaissance survey of the project area was conducted in October 2022 to evaluate the effects of the proposed project on cultural resources. The survey included a literature review and shovel probes. No archeological sites were discovered during the survey, and it was concluded that the project would not affect any archeological properties eligible for listing on the National Register of Historic Places (NRHP). See **Appendix G – Historical and Cultural Resources** for the archeological reconnaissance survey report.

In addition to the archeological reconnaissance survey, an architectural research inventory survey of the project area was conducted in October 2022. The survey included a review of archival records and a field investigation. Due to the lack of potentially significant cultural materials on the property, it was concluded that the proposed project will not affect properties eligible for or listed on the NRHP. The architectural research inventory survey report is provided in **Appendix G – Historical and Cultural Resources**.

3.12 Land Use

As described in 1050.1G *Desk Reference*, a discussion of possible conflicts between the proposed action and the objectives of federal, state, regional, and local land use plans, policies, and controls for the area concerned is required. Where an inconsistency exists, the EA document should describe the extent to which the agency would reconcile its proposed action with the existing land use plan. The FAA also requires airport operators to ensure that actions are taken to establish and maintain compatible land uses around their airports.

Land use regulations near airports typically focus on safety for airport users and the surrounding community. Elements of airport actions can change existing land use patterns and, in some instances, disrupt communities, require residential or business relocations, or degrade surface transportation service. Land use controls and zoning regulations generally discourage or prohibit land use that is incompatible with airport operations. The authority to enact zoning codes usually lies at the local level.

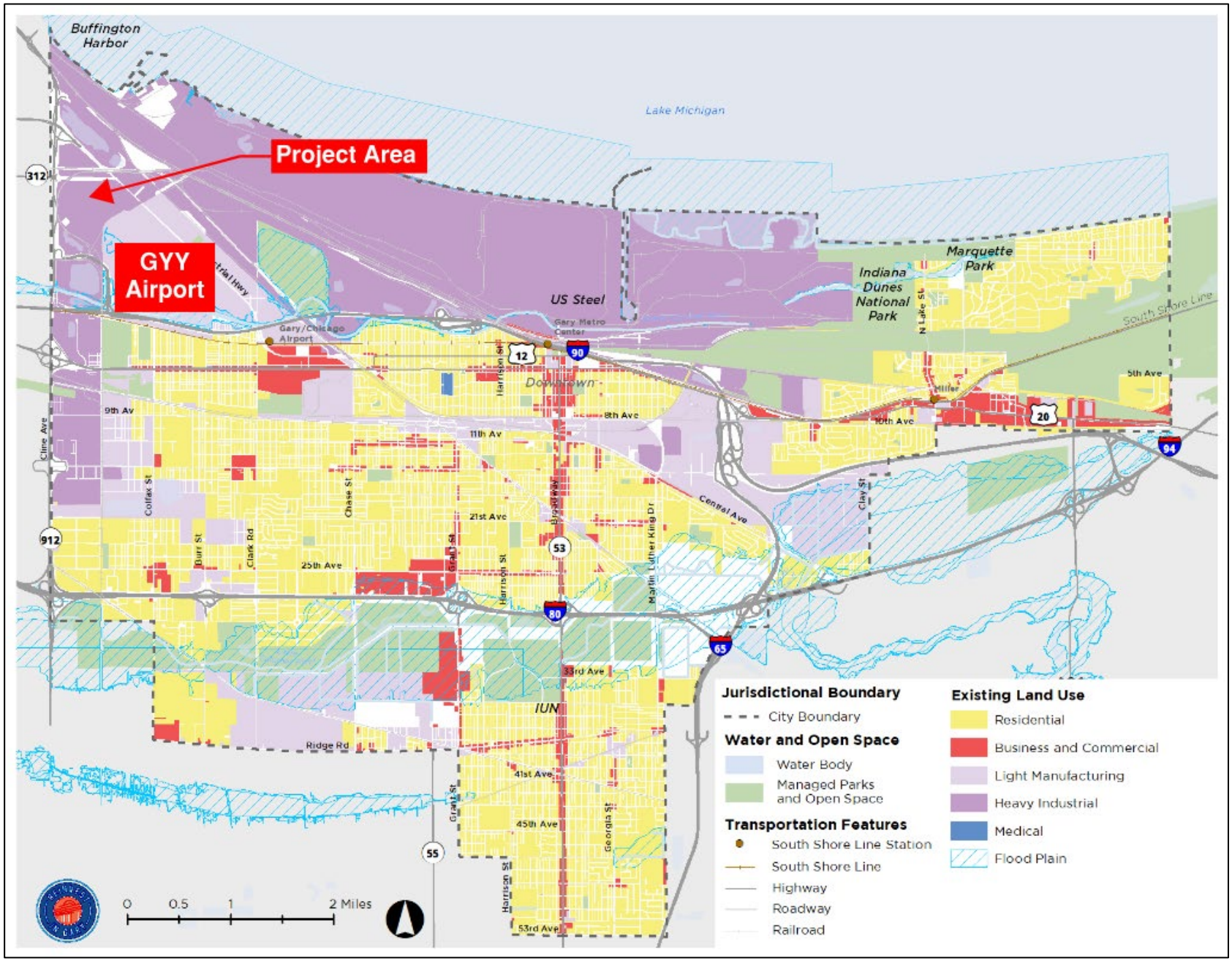
According to FAA Advisory Circular (AC) 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports,* the FAA also requires that consideration be given to the potential increases in wildlife attractants that a project may create and that existing incompatible land uses near airports be assessed, such as solid waste landfills, crops, open water, and wetlands that may act as wildlife attractants.

The Airport property lies within the City of Gary. According to the current land use map for the City of Gary, the existing land use for the majority of Airport property is classified as “Light Manufacturing,” while the project area is classified as “Heavy Industrial.” The City of Gary’s land use map is provided in **Figure 3.6 City of Gary Existing Land Use Map**.

Land uses surrounding Airport property are classified as follows:

- Heavy Industrial
- Business and Commercial
- Residential
- Managed Parks and Open Space

Figure 3.6 City of Gary Existing Land Use Map



Source: City of Gary Comprehensive Plan, October 2019

3.13 Natural Resources and Energy Supply

Executive Order 13834, *Efficient Federal Operations* directs projects to examine the potential changes in the demand for energy or natural resources that would have a significant measurable effect on local supplies due to the implementation of the Preferred Alternative or the No Action Alternative. Energy requirements associated with an airport usually fall into two categories: (1) those that relate to changed demands for stationary facilities and (2) those that involve the movement of air and ground vehicles. Examples of these include airfield lighting, terminal building heating and cooling systems, and aircraft and passenger vehicles.

Though specific significance thresholds for natural resource consumption and energy supply have not been established by the FAA, the proposed action should be examined for the potential to cause demand to exceed available or future supplies of these resources.

FAA guidance typically states that airport improvement projects do not generally increase the consumption of energy or natural resources to the point that significant impacts would occur unless it is found that implementation of a proposed project would cause demand to exceed supply.

The facilities at the Airport require electricity and natural gas for lighting, cooling / heating, and operations. The area around the Airport is considered an urban industrial area with adequate access to natural resources for aircraft operations and construction projects as well as meeting the needs of the surrounding community.

3.14 Noise and Noise Compatible Land Use

According to FAA Order 5050.4B, NEPA Instructions for Implementing Airport Actions, “the compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of the noise impacts related to that airport.” An FAA noise analysis primarily focuses on how proposed airport actions would change the noise exposure of individuals to aircraft noise in areas surrounding the airport.

Noise is considered unwanted sound that disturbs or interrupts routine activities. Aviation noise includes sounds made by aircraft during departure, arrival, flight, taxiing, and other activities. The compatibility of land use around an airport is typically determined based on the level of aircraft noise. The degree of annoyance that people suffer from aircraft noise varies depending upon their activities at any given time.

The FAA uses the Day-Night Average Sound Level (DNL) as its primary noise metric. DNL accounts for the levels of aircraft events, the number of times those events take place, and the timeframe in which they occur (day or night). The FAA, EPA, and U.S. Department of Housing and Urban Development have established the 65-decibel DNL level as the threshold for noise impacts over noise sensitive areas. Noise levels greater than 65 DNL on noise sensitive areas are considered a potential impact.

Noise sensitive areas typically include residential, educational, health, religious structures and sites, parks, recreational areas, wilderness areas, wildlife refuges, and cultural and historical sites. In the context of

airport noise, such facilities, or areas within the 65 DNL contour, may be considered a noise sensitive land use.

No noise-sensitive land uses (e.g., residential neighborhoods, recreational areas, and parks) exist in the project area. Residential areas northwest of the Airport in the City of East Chicago as well as south and east of the Airport in the City of Gary were considered for noise impacts, but other adjacent land uses (industrial and manufacturing uses) are not noise-sensitive and were not considered.

3.15 Socioeconomics and Children's Environmental Health and Safety Risks

Statutes related to socioeconomic impacts include the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970 (42 U.S.C. § 61 et seq.). Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks and other federal guidance have been issued to address children's environmental health and safety risks.

Airport development projects can impact the socioeconomic conditions of the surrounding community. Such projects have the potential to impact neighboring populations, including children, and may do so disproportionately to the overall area population. The proposed project was evaluated for socioeconomic impacts as well as health and safety risks to children.

3.15.1 Socioeconomic Impacts

The types of socioeconomic impacts that can arise from airport development projects include:

- Relocation of residences, businesses, or farms.
- Alteration of surface transportation patterns that may restrict community access.
- Disruption of established communities.
- Disruption of orderly, planned development.
- Creation of appreciable changes in employment.

Table 3-0 Major Employers in Lake County, Indiana lists important employers in Lake County and the approximate number of people employed. The County's major employers and industry are not expected to be adversely impacted by the Proposed Action and may benefit from access to an improved airport facility. In addition, no appreciable changes in employment in the County are anticipated.

Table 3-0 Major Employers in Lake County, Indiana		
Company/Organization	**City**	**Number of Employees**
Cleveland Cliffs-Indiana Harbor	East Chicago, IN	3,715
Franciscan Health Dyer	Dyer, IN	3,064
Strack & Van Til	Highland, IN	3,000
NIPSCO / NiSource	Merrillville, IN	2,800
Community Hospital	Munster, IN	2,620
Methodist Hospital Northlake	Gary, IN	2,292
Alverno Clinical Labs LLC	Hammond, IN	2,000
Franciscan Health	Crown Point, IN	1,861
Methodist Hospital Southlake	Merrillville, IN	1,507
Bulkmatic Transport Co.	Griffith, IN	1,300

Source: Lake County Economic Alliance

3.15.2 Children's Environmental Health and Safety Risks

FAA Order 1050.1G requires the identification of any potential environmental health risks to children as stated: "Environmental health risks and safety risks include risks to health and safety that are attributable to products or substances that a child is likely to come in contact with or ingest, such as air, food, drinking water, recreational waters, soil, or products they might use or be exposed to." (FAA Order 1050/1F Desk Reference 12.3)

The FAA has not established a significance threshold for impacts to children's environmental health and safety; however, an analysis should include a determination on a proposed action's potential to cause disproportionate health or safety risks to children.

According to U.S. Census Bureau data, 20 percent of the population within a one-mile radius of the project area is under the age of 18. However, all construction under the Proposed Action would occur on GYY-owned property.

3.16 Visual Effects (Including Light Emissions)

Airport lighting is required for security, obstruction identification, and navigation. The essential lighting systems required to safely operate an airport and its components can contribute to light emissions. When projects introduce new or relocated existing airport lighting facilities that may affect residential or other light-sensitive areas in proximity to an airport, an analysis of these impacts is necessary. FAA guidance states that the level of light emissions considered sufficient to warrant a special study is unusual, for example, occurring when a high-intensity strobe would be shining into a residential area or when apron, parking, or streetlights create a visual impact to pilots.

A project can also have impacts on the visual resources and visual character of the surrounding area. Visual resources and visual character impacts are typically related to a decrease in the aesthetic quality of an area resulting from development, construction, or demolition. FAA guidance states that an analysis of visual impacts is necessary when the proposed action would affect, obstruct, substantially alter, or remove visual

resources including buildings, historic sites, or other landscape features, such as topography, water bodies, or vegetation, which are visually important or have unique characteristics.

The project area is located in the northwest portion of Airport property and consists of a large, paved parking/storage area with access roads that lead in and out of the site. In addition, the area has unmaintained or decommissioned infrastructure such as old roadways and raised railroad beds. The project will include new lighting for apron areas, taxiway connectors, cargo buildings, and truck and auto parking areas, but this lighting would be similar to existing lighting at the Airport.

A residential area located approximately 0.5 miles northwest of the project area is the nearest light-sensitive resource.

3.17 Water Resources

FAA Order 1050.1G references the Clean Water Act (CWA) described in 33 U.S.C. §§ 1251-1387, which provides the federal government with the authority to regulate activities related to water quality, including controlling discharges, preventing or minimizing loss of wetlands, and protecting local aquifers or sensitive ecological areas. In essence, the quality of surface water and groundwater should not be degraded by the planned construction or operations associated with a proposed development.

Water resources are surface waters and groundwater that are important to the ecosystem and the human environment. Analysis of water resources includes checking for disruption as well as changes in quality. Because wetlands, floodplains, surface waters, groundwater, and other water resources are all connected within the overall system, this section encompasses an analysis of each.

3.17.1 Wetlands

Wetlands are areas that support specific vegetation due to inundation or saturation by ground water. Sometimes these are called swamps, marshes, or bogs. Wetlands provide benefits to the natural and human environments that include habitat, water filtration, storage, and recreation. There are several statutes, regulations, orders, and other requirements related to wetlands. The CWA regulates the discharge of pollutants into Waters of the U.S. (including wetlands) and establishes a program to regulate discharge of fill material into such waters. The CWA also requires projects not to violate water quality standards.

Surface waters or wetlands considered jurisdictional are regulated under the CWA; however, not all surface waters are under the authority of the CWA. The United States Army Corps of Engineers (USACE) makes jurisdictional determination case by case. Non-jurisdictional wetlands are protected under Presidential Executive Order 11990, Protection of Wetlands, commonly known as the “No Net Loss” executive order. This executive order directs any project that uses federal funds or is federally approved to mitigate for all wetland impacts that it causes regardless of size or regulatory status. Therefore, any wetland impacts resulting from the construction of the Proposed Action will require mitigation.

To determine the locations and limits of area wetlands, appraise their types and functions, assess their regulatory status, and evaluate potential impacts from the proposed project, two separate USACE-compliant wetland delineations were conducted. The first was completed by Stantec on October 24-25, 2022, and November 4, 2022. (see **Figure 3.7 Stantec Wetland Delineation Study Area**). The second

delineation was completed by Soil Solutions, Inc (SSI) on October 11, 15, and 23, 2024 (see **Figure 3.8 SSI Wetland Delineation Study Area**).

Both wetland delineations were based on the methodology described in the 1987 Corps of Engineers Wetland Delineation Manual and the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. Both wetland delineation reports are provided in **Appendix H – Wetlands**.

Stantec Study Area Description

The Study Area for the wetland delineation completed by Stantec was the same as the PSA for the biological resources field investigation. See **Section 3.6.1 Endangered and Threatened Species** for a description of the Study Area.

Stantec Delineated Wetlands

A total of 10 wetland complexes enclosing 8.42 acres were delineated within the Study Area as shown in **Figure 3.9 Stantec Wetland Boundary Map**. **Table 3-1 Stantec Summary of Delineated Wetlands** summarizes the delineated wetlands.

Wetland 1 Palustrine Emergent Wetland (PEM)

Wetland 1 is an emergent wetland situated between an unused concrete lot to the north and paved runway to the southeast. Wetland 1 is dominated by invasive species, such as common reed and glossy false buckthorn, but contains areas with conservative species indicative of the dune and swale habitat. This feature has connected surface water hydrology to Wetland 2 during heavy precipitation events. This feature has further wetland acreage that continues west outside the Study Area. A total of 61 plant species were identified within this large habitat.

Wetland 2 PEM/Palustrine Forested Wetland (PFO)

Wetland 2 is predominantly emergent wetland with a section along its eastern border that consists of forested wetland. Like Wetland 1, Wetland 2 is situated between a concrete lot to the north and a paved runway along part of its southern border. The wetland is divided from Wetland 3 by a neglected roadbed along its southeastern border. Wetland 2 is dominated by the invasive species common reed with an increasing number of Eastern cottonwood and willows within the eastern section. A total of 30 plant species were identified within this habitat.

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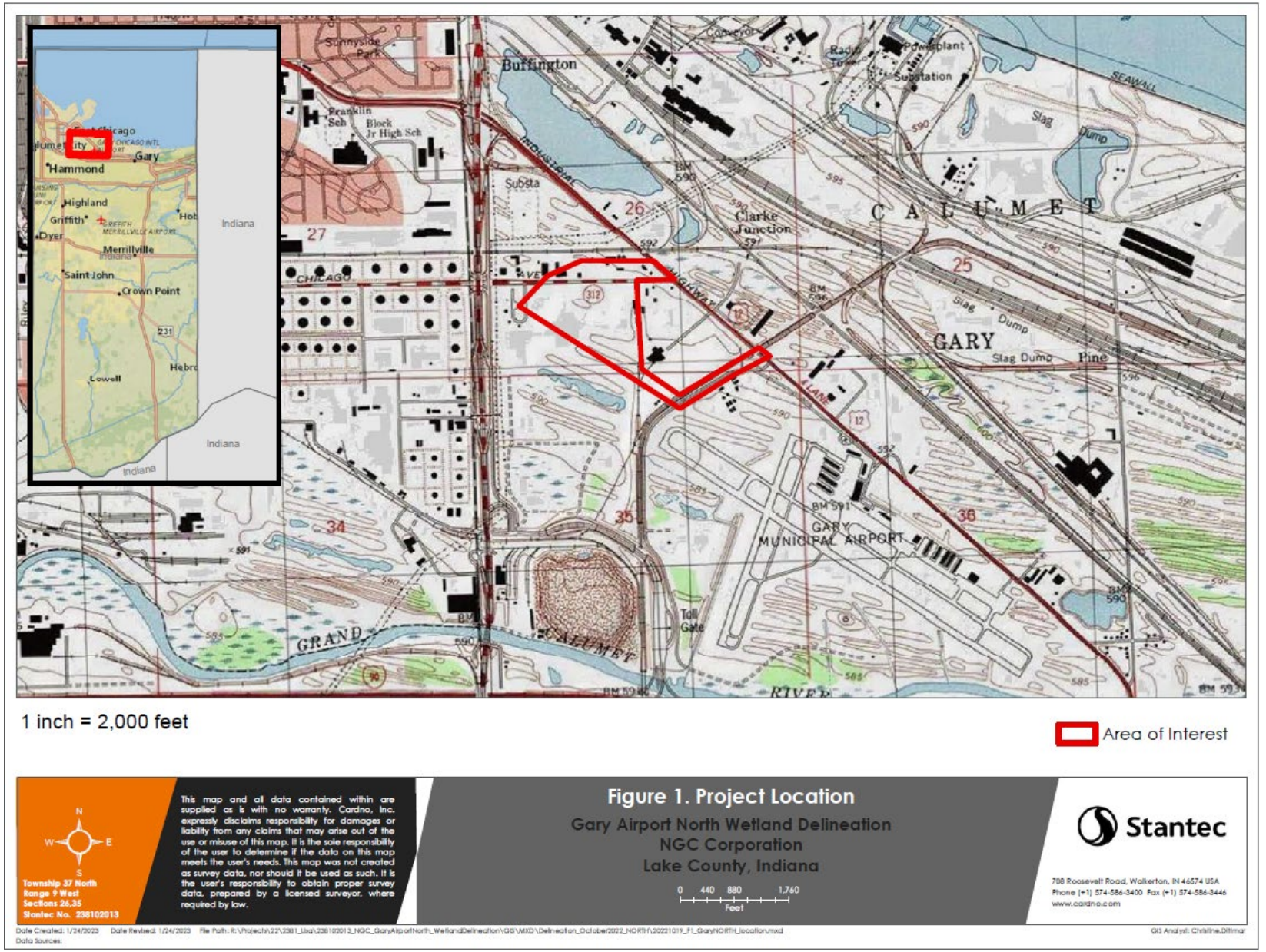
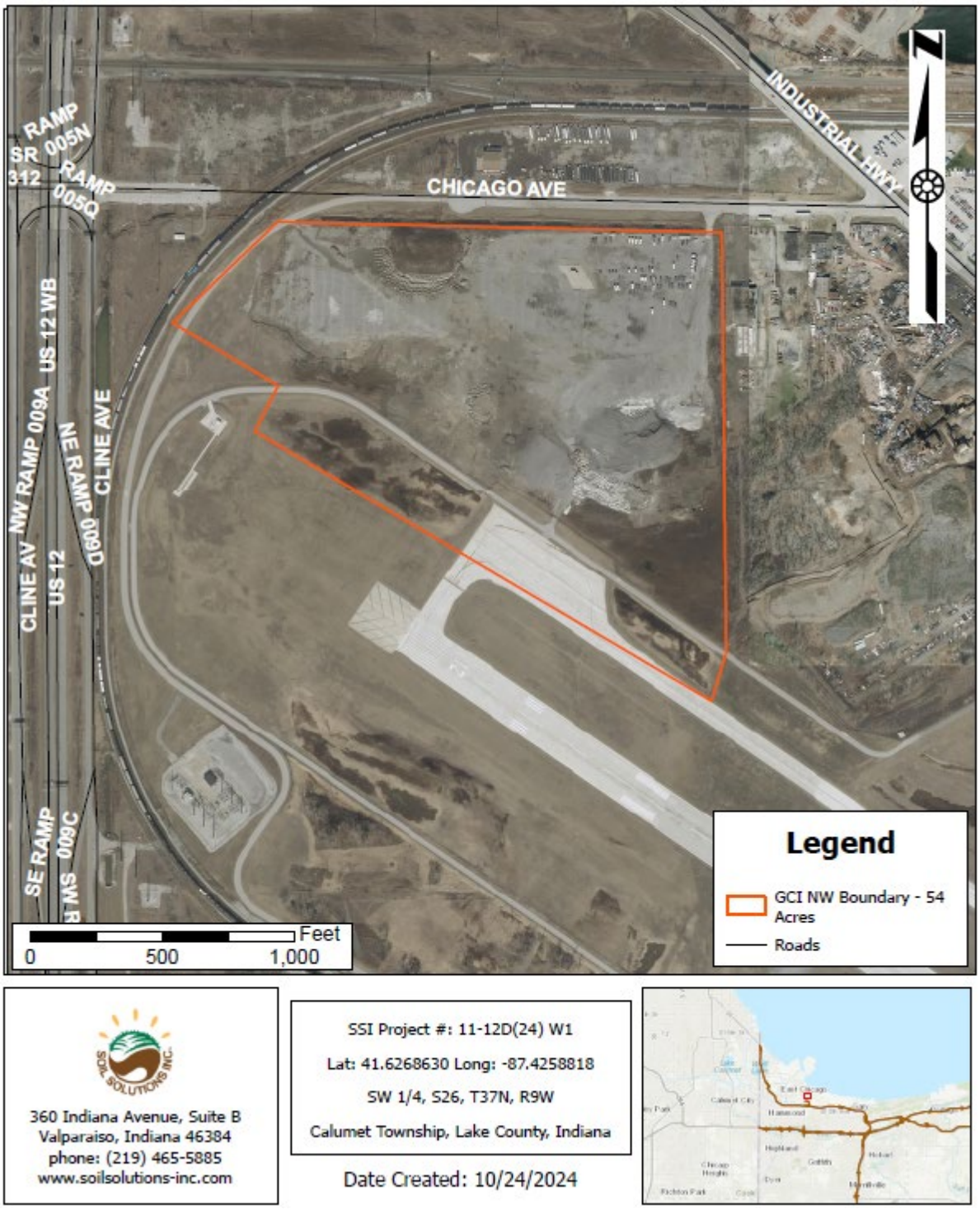
Figure 3.7 Stantec Wetland Delineation Study Area



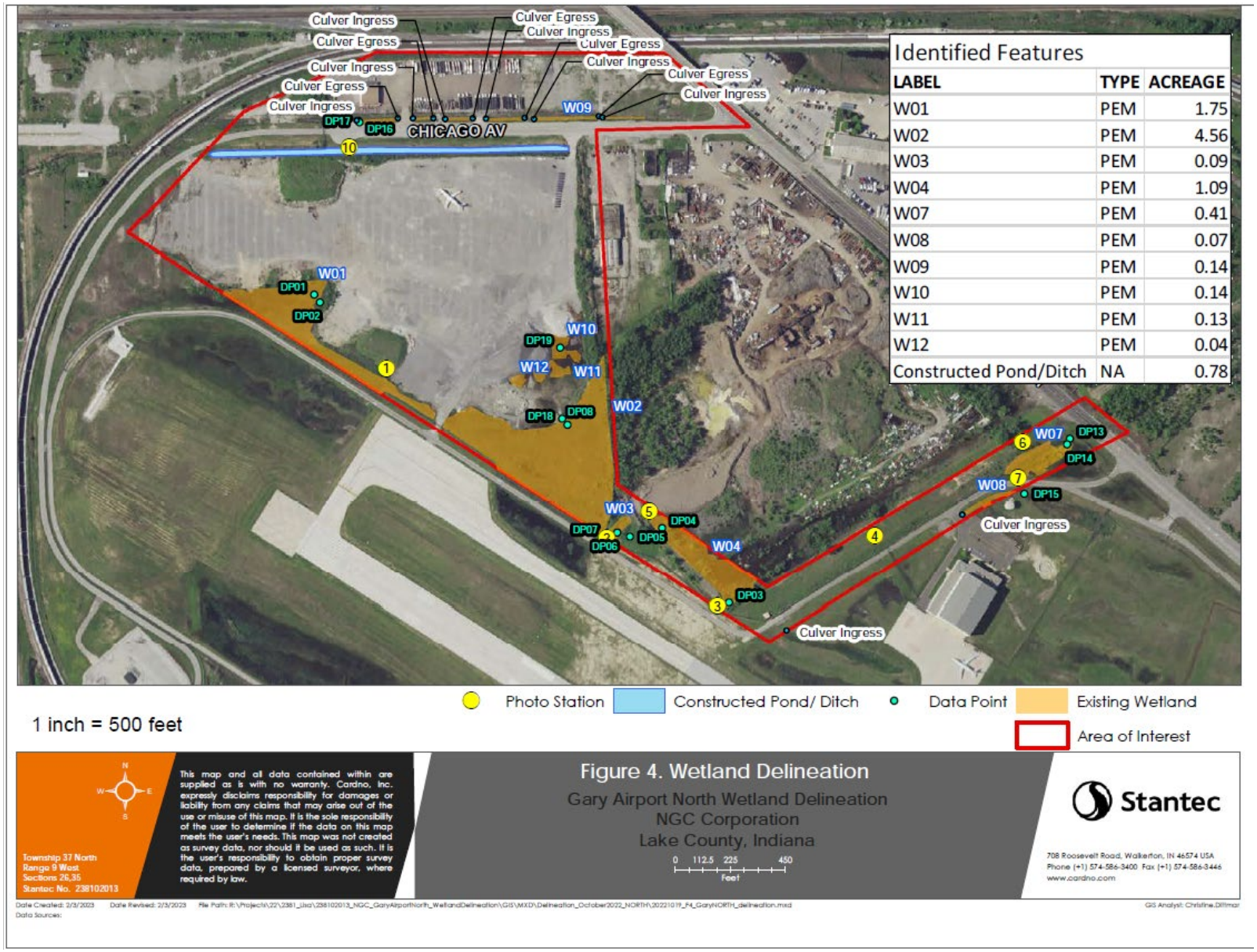
Source: *Regulated Waters Delineation Report, NGC: Gary Airport North Wetland Delineation*, February 15, 2023, prepared by Stantec

Figure 3.8 SSI Wetland Delineation Study Area



Source: *Wetland Delineation Report GCI Airport Northwest*, October 24, 2024, prepared by Soil Solutions, Inc.

Figure 3.9 Stantec Wetland Boundary Map



Source: *Regulated Waters Delineation Report, NGC: Gary Airport North Wetland Delineation*, February 15, 2023, prepared by Stantec

Table 3-1 Stantec Summary of Delineated Wetlands		
Wetland	**Type**	**Total Area (Acres)**
1	PEM	1.75
2	PEM/PFO	4.56
3	PEM	0.09
4	PEM/PFO	1.09
7	PEM	0.41
8	PEM	0.07
9	PEM	0.14
10	PEM	0.14
11	PEM	0.13
12	PEM	0.04
Total		**8.42**
Source: *Regulated Waters Delineation Report, NGC: Gary Airport North Wetland Delineation*, February 15, 2023, prepared by Stantec		

Wetland 3 PEM

Wetland 3 is an emergent wetland situated between Wetland 2 to the northwest and Wetland 4 to the east. Wetland 3, however, is separated from Wetland 2 by an unmaintained roadbed. This feature allows the two wetlands to share surface water hydrology during heavy precipitation events. Wetland 3 is dominated by the invasive species common reed but also contains a considerable number of sandbar willow stems. Additionally, the wetland contains areas with conservative species indicative of the dune and swale habitat. A total of 23 plant species were identified within this habitat.

Wetland 4 PEM/PFO

Wetland 4 is an impacted wetland located to the east of Wetland 3. It is situated between an upland berm on its southwestern border and an impacted upland to the north. In addition, a berm from a discontinued railroad generates the wetland's southeastern border. The wetland encompasses two types of Palustrine classifications. The northwestern portion of Wetland 4 consists of PFO with a dominant understory of common reed, while the southeastern portion is PEM with a slightly more diverse plant community. Wetland 4 is dominated by native species, such as sandbar willow and Eastern cottonwood, but also the invasive common reed. This wetland holds surface water during heavy precipitation events but can be dry enough for a nearby infrastructure facility to park vehicles within it. This feature has further wetland acreage that continues northeast outside the Study Area. A total of 27 plant species were identified within this habitat.

Wetland 7 PEM

Wetland 7 is an impacted emergent wetland found along the eastern portion of the Study Area. It is adjacent to Industrial Highway. The wetland's northern and western border consist of an abandoned railway berm, while a paved access road sits below its southern border. The wetland is dominated by chufa, as well as invasive reed canary grass. The northwestern portion of this feature is dominated by common reed. The common reed continues beyond the boundary of this feature and climbs upslope towards the summit of the

discontinued railroad bed. This wetland had gravel fill within it at the time of the field investigation. A total of 15 plant species were identified within this habitat.

Wetland 8 PEM

Wetland 8 is an emergent wetland situated between an access road along its northern boundary and a paved parking lot to the southwest. Wetland 8 lies across the access road and to the southwest of Wetland 7. A culvert ingress is present at the southwest terminal of the wetland, which likely contributes to the wetland's hydrology. Dominant vegetation within the wetland consists of three-square. This wetland continues beyond the eastern boundary of the Study Area where it expands into a larger PEM. A total of 24 plant species were identified within this habitat.

Wetland 9 PEM

Wetland 9 is an emergent wetland located within the northern section of the Study Area. The wetland is situated between an access road along its southern border and a paved parking lot along its northern border. Several road bridges with culverts beneath them divide Wetland 9 into six separate sections. This wetland was likely a constructed roadside ditch that lacks draining capabilities, which allowed wetland characteristics to develop in the soils. Wetland 9 is dominated by the invasive species common reed, though other native species are present within the wetland area. A total of 14 plant species were identified within this habitat.

Wetland 10 PEM

Wetland 10 is a small, emergent wetland that was found in the eastern section of the Study Area. It has a large gravel pile along its northern and western borders and has Wetlands 11 and 12 along its southern border. Hydrology is shared among these three wetlands and Wetland 2, which is located to the southeast. Wetland 10 is dominated by sandbar willow and three-square. This wetland is impacted from the gravel fill within it and holds water for a duration long enough to create significant algal mats. Algal crusts were observed and photographed within this feature at the time of the field investigation. A total of 13 plant species were identified within this habitat.

Wetland 11 PEM

Wetland 11 is an emergent wetland that was found in the eastern section of the Study Area. This wetland is east of Wetland 12, south of Wetland 10, and northwest of Wetland 2. Additionally, this small feature shares hydrology with all three of these wetlands. Wetland 11 is impacted from the gravel fill within it and holds water for a duration long enough to create significant algal mats. Algal crusts were observed and photographed within this feature at the time of the field investigation. A total of 17 plant species were identified within this habitat.

Wetland 12 PEM

Wetland 12 is an emergent wetland situated between a large pile of gravel to the north and west and Wetland 11 to the east. Wetlands 11 and 12 are separated by a gravel pile, most likely formed during construction of the concrete lot to the north. Despite these large gravel piles, Wetlands 10, 11, 12, and 2 share surface water hydrology during heavy precipitation events. This wetland is impacted from the gravel fill within it and holds water for a duration long enough to create significant algal mats. Algal crusts were

observed and photographed within this feature at the time of the field investigation. A total of 11 plant species were identified within this habitat.

SSI Study Area Description

The 54-acre Study Area for the wetland delineation completed by SSI lies in the northeastern portion of Lake County within the Oakville-Tawas soil association. This soil association is characterized by steep to nearly level and depressional, excessively drained and very poorly drained soils that formed in coarse-textured and organic materials. The Lake County Soil Survey identifies the Oakville-Adrian complex and Urban land soil types on the Property. None of these soil series are listed as hydric in the National or Lake County Hydric Soils Lists.

The uplands on the property consist of disturbed, mowed upland and a gravel drive along a powerline easement and forested upland margins between wetland depressions along the ditch berm. Dominant plant species observed across the uplands on site included glossy buckthorn, sandbar willow, pussy willow, Carolina rose, common wormwood, late boneset, Canada goldenrod, Virginia wild strawberry, great plantain, queen Anne's lace, Riddell's goldenrod, purple loosestrife, Torrey's rush, bluejoint grass, fall panic grass, wand panic grass, big bluestem, little bluestem, yellow Indian grass, Kentucky bluegrass, perennial rye grass, tall fescue, and common reed. No signs of wetland hydrology were observed and none of the data points met any hydric soil indicators within the upland regions at the time of the delineation.

There were no streams or ditches mapped on the site. However, a small blueline tributary of the Grand Calumet River exists just south of the runway outside the project area.

SSI Delineated Wetlands

A total of eight wetland boundaries enclosing 9.05 acres were delineated within the Study Area as shown in **Figure 3.10 SSI Wetland Boundary Map**. **Table 3-2 SSI Summary of Delineated Wetlands** summarizes the delineated wetlands.

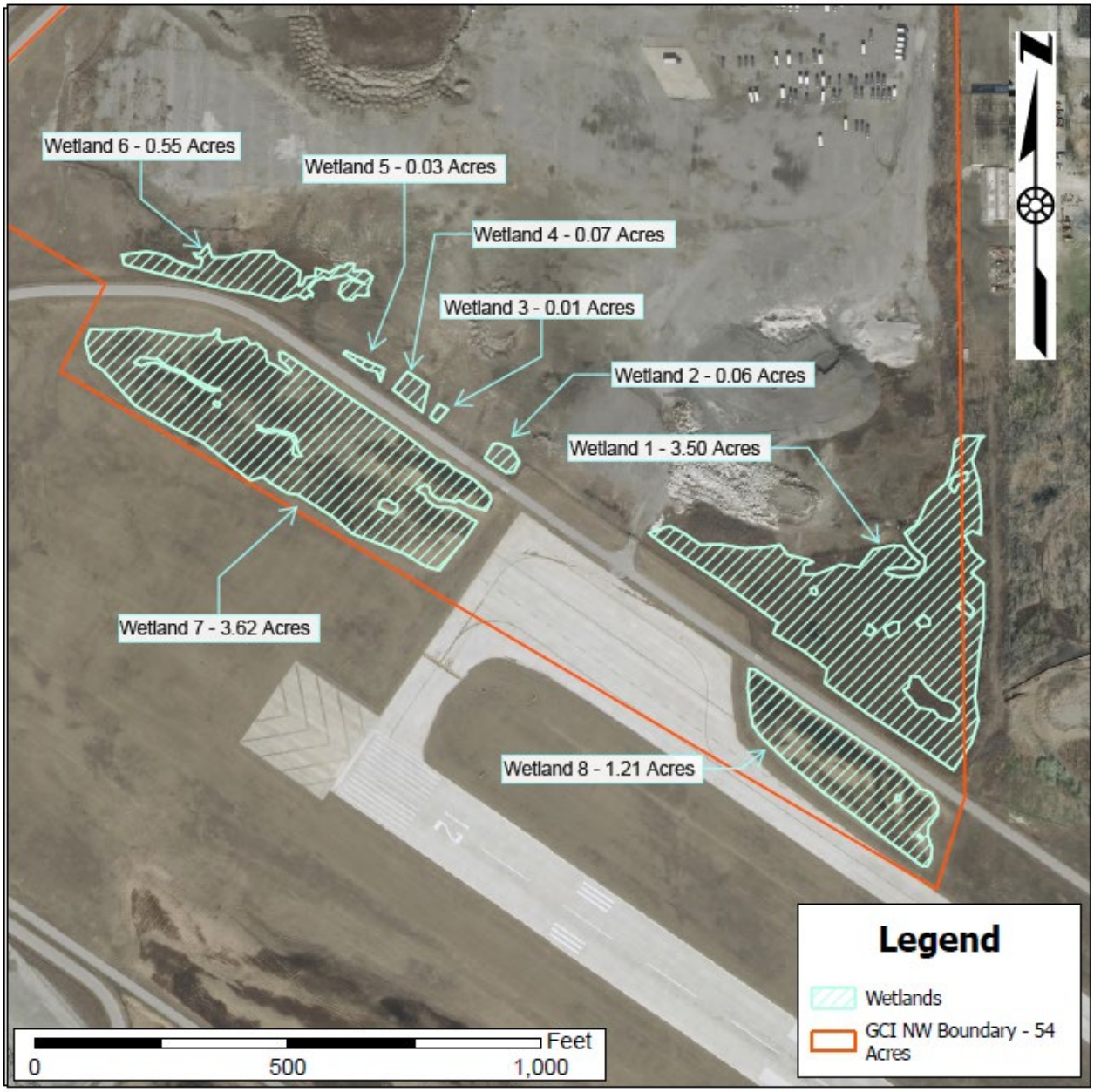
Wetland 1 Palustrine Emergent Wetland (PEM)

Wetland 1 is a 3.50-acre palustrine, emergent, seasonally flooded wetland. The area is a common reed dominated depression in the southeast corner of the project area. This wetland has been disturbed in the past. Fill piles within the limits of the wetland were flagged out and gravel and slag material were observed at several of the soil borings. This wetland was historically a part of a dune and swale community, but this wetland has been heavily disturbed, and the typical topography of this landscape is no longer evident. The dominant plant species within the wetland consisted of eastern cottonwood, glossy buckthorn, and common reed.

Wetland 2 PEM

Wetland 2 is a 0.06-acre palustrine, emergent, seasonally flooded wetland. The area is a common reed dominated depression. The dominant plant species within the wetland consisted of common reed.

Figure 3.10 SSI Wetland Boundary Map



360 Indiana Avenue, Suite B
Valparaiso, Indiana 46384
phone: (219) 465-5885
www.soilsolutions-inc.com

SSI Project #: 11-12D(24) W1
Lat: 41.6268630 Long: -87.4258818
SW 1/4, S26, T37N, R9W
Calumet Township, Lake County, Indiana

Date Created: 10/24/2024

Source: *Wetland Delineation Report GCI Airport Northwest*, October 24, 2024, prepared by Soil Solutions, Inc.

Table 3-2 SSI Summary of Delineated Wetlands		
Wetland	**Type**	**Total Area (Acres)**
1	PEM	3.50
2	PEM	0.06
3	PEM	0.01
4	PEM	0.07
5	PEM	0.03
6	PEM	0.55
7	PEM	3.62
8	PEM	1.21
Total		**9.05**
Source: *Wetland Delineation Report GCI Airport Northwest*, October 24, 2024, prepared by Soil Solutions, Inc.		

Wetland 3 PEM

Wetland 3 is a 0.01-acre palustrine, emergent, seasonally flooded wetland. The area is a depression dominated by common reed abutting the fence around the airport runway. The dominant plant species within the wetland grey dogwood and common reed.

Wetland 4 PEM

Wetland 4 is a 0.07-acre palustrine, emergent, seasonally flooded wetland. The area is a common reed dominated wetland depression. The dominant plant species within the wetland consisted of common reed.

Wetland 5 PEM

Wetland 5 is a 0.03-acre palustrine, emergent, seasonally flooded wetland. The area is an emergent depression along the fenced area around the runway on the south side of the project area. The dominant plant species within the wetland consisted of glossy buckthorn and common reed.

Wetland 6 PEM

Wetland 6 is a 0.55-acre wetland in the west end of the project area. This wetland is a palustrine, emergent, persistent, seasonally flooded wetland. The dominant plant species within the wetland consisted of common rush and common reed.

Wetland 7 PEM

Wetland 7 is a 3.62-acre wetland south of the fence on the northwest edge of the runway. This wetland is a palustrine, emergent, persistent, seasonally flooded wetland. The dominant plant species within the wetland consisted of glossy buckthorn, cattail, wild strawberry, bluejoint grass, fall panic grass, brown beak sedge, little green sedge, and common reed.

Wetland 8 PEM

Wetland 8 is a 1.21-acre wetland north of the runway on the south side of the fence just south of Wetland 1. This wetland is a palustrine, emergent, persistent, semi-permanently flooded wetland. The dominant plant species within the wetland consisted of cattail and common reed.

Summary of Combined Delineated Wetland Descriptions

Because the two wetland delineations evaluated slightly different study areas, the two boundaries were overlaid to determine a total area of delineated wetlands (see **Figure 3.11 Combined Wetland Delineation Study Area**). Many of the wetlands delineated were found in both delineations, other wetland complexes were specific to the delineation completed. The total acreage of both delineations equaled 17.47 acres; however, only 13.67 acres were unique individual wetlands.

3.17.2 Floodplains

Executive Order 11988, Floodplain Management, defines floodplains as "the lowland and relatively flat areas adjoining inland and coastal waters including flood-prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year." Executive Order 11988 discourages federal actions in a floodplain unless no practicable alternative exists and requires measures to minimize unavoidable short-term and long-term impacts if the proposed action occurs in a floodplain. Projects within a 100-year floodplain are discouraged.

As part of the National Flood Insurance Program, the Federal Emergency Management Agency (FEMA) produces Flood Insurance Rate Maps (FIRM) that serve as official flood maps depicting Special Flood Hazard Areas.

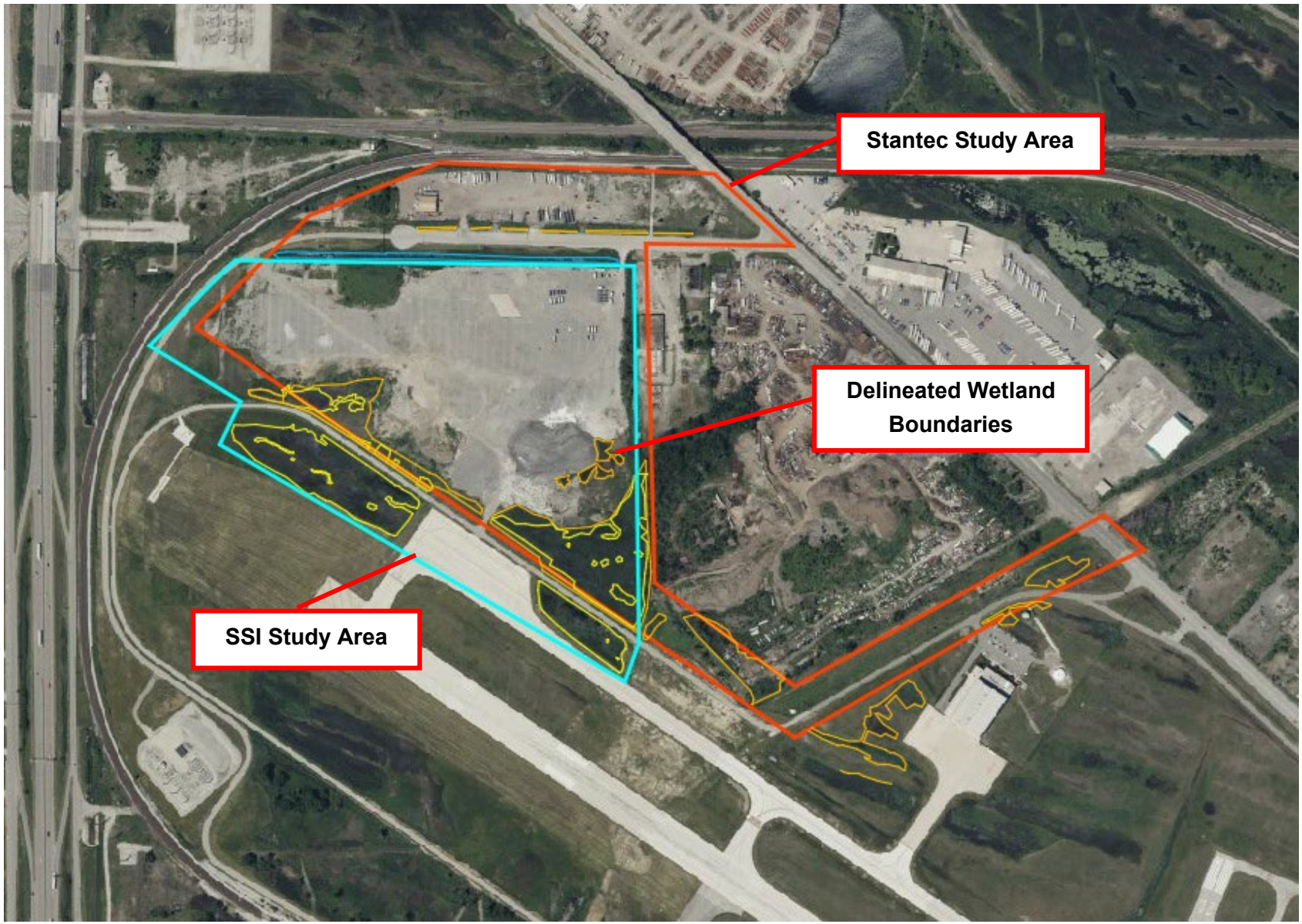
The FEMA FIRMs for the project area were reviewed to determine the presence of floodplains. The FIRMs show no regulated floodplains in the project area. The FIRMs are presented in **Figure 3.12 Floodplain Map 1** and **Figure 3.13 Floodplain Map 2**.

3.17.3 Surface Water

The CWA, in conjunction with the Fish and Wildlife Coordination Act (16 U.S.C. §§ 661-667d), Rivers and Harbors Act (33 U.S.C. § 401 and 403), the Safe Drinking Water Act (SDWA) found in 42 U.S.C. §§ 300(f)-300j26, and other local statutes, establishes regulations that protect the nation's water resources. Surface waters are typically lakes, rivers, streams, creeks, and wetlands. Surface waters collect the water from precipitation that does not infiltrate the soil and instead flows across the land. Surface waters can be hydrologically connected to groundwater.

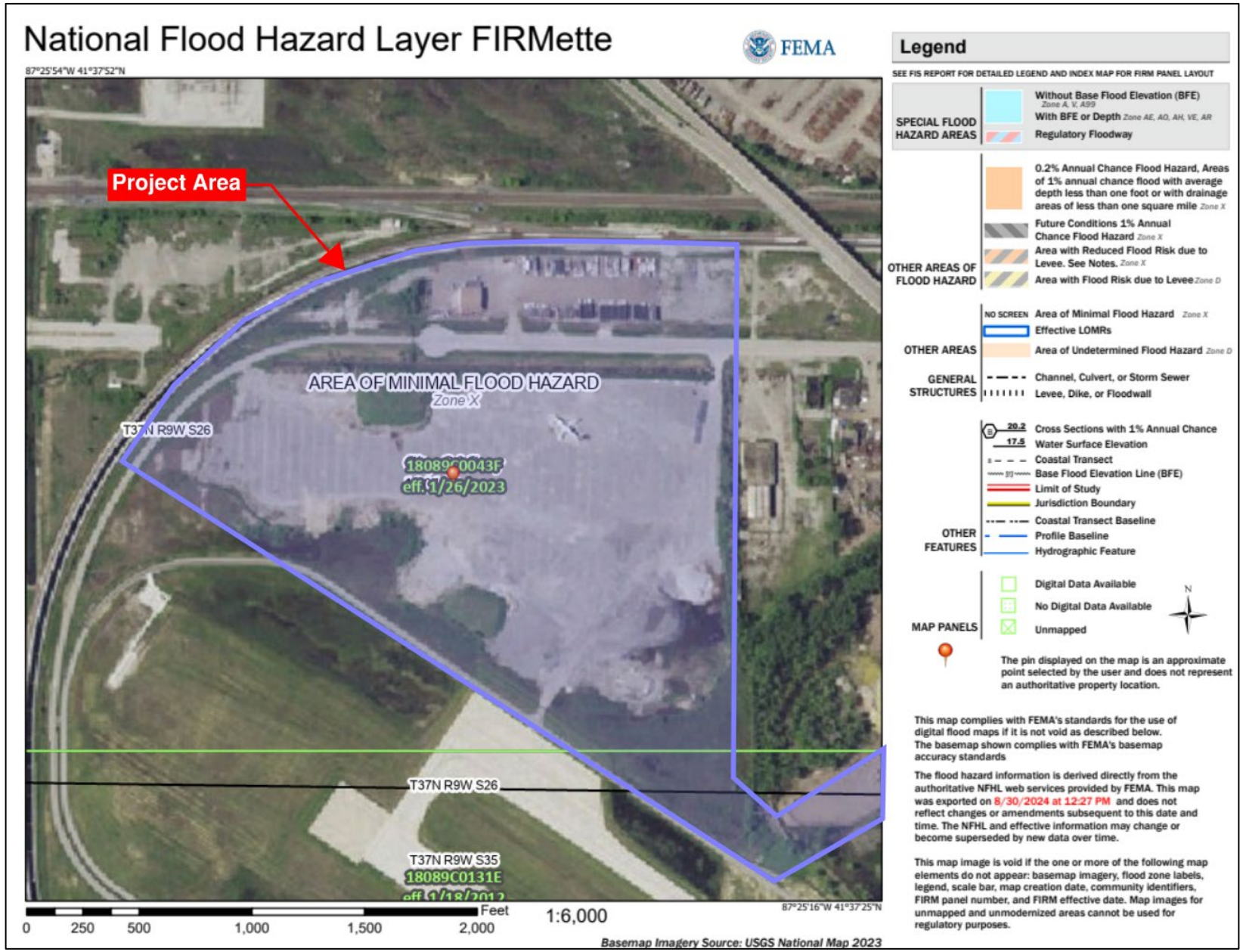
The EPA's *NEPAssist* tool was reviewed to determine the presence of surface water resources within and in the vicinity of the project area. No resources are located within the project area. Surface water resources in the vicinity include the Grand Calumet River south of the project area, several unnamed streams southeast of the project area, and several unnamed ponds / lakes north and south of the project area. The EPA classifies the Grand Calumet River and the unnamed streams as impaired streams. A map of these surface water resources is presented in **Figure 3.14 Surface Water Resources**.

Figure 3.11 Combined Wetland Delineation Study Area



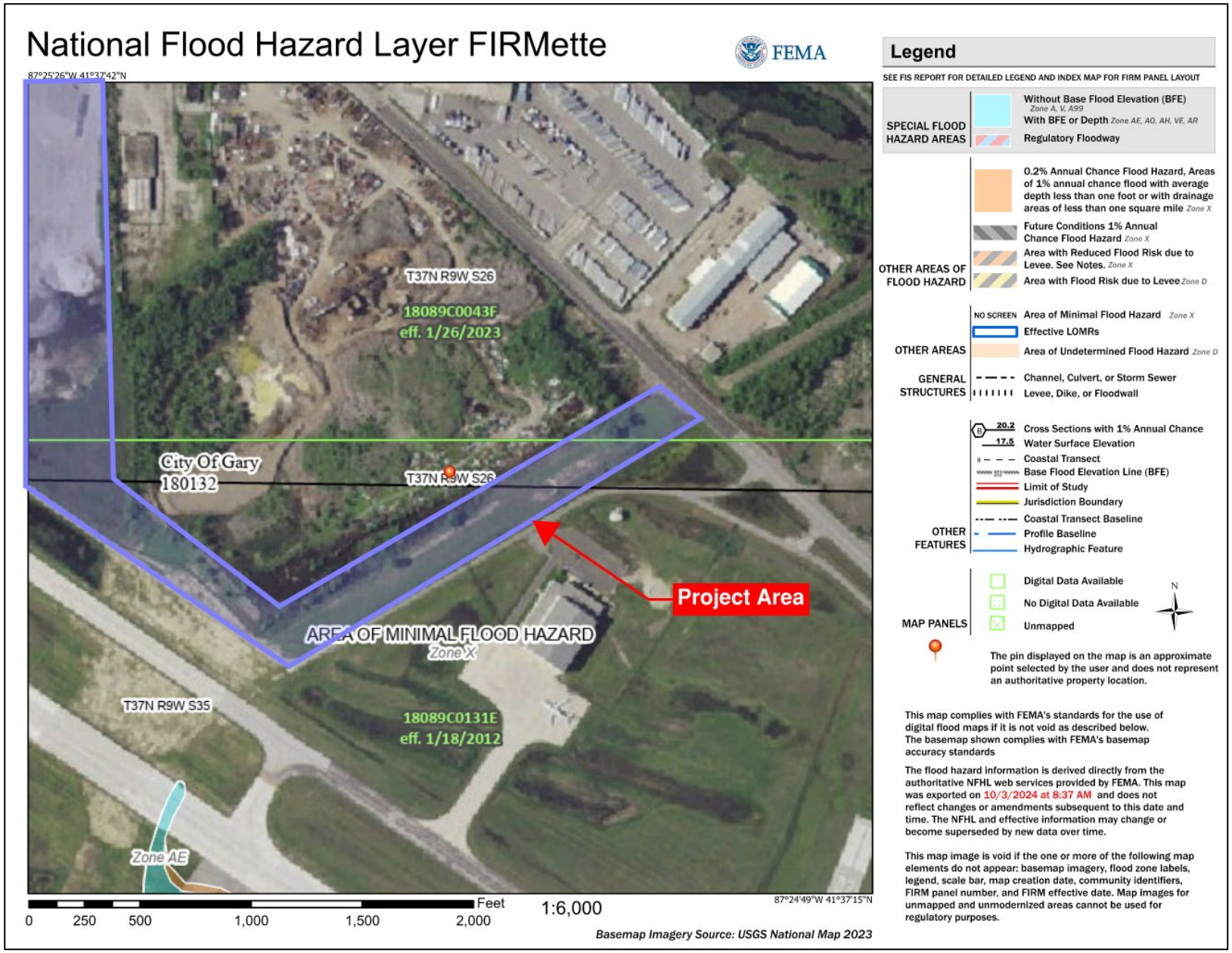
Source: *Mead & Hunt, Inc.*

Figure 3.12 Floodplain Map 1



Source: Federal Emergency Management Agency

Figure 3.13 Floodplain Map 2



Source: Federal Emergency Management Agency

Figure 3.14 Surface Water Resources

Source: EPA *NEPAssist* Tool

Although not shown in the *NEPAssist* tool, the wetland delineation identified a man-made water retention ditch with constructed banks made of shingling material inside the project area. The ditch runs in an east-west direction in the northern portion of the project area. This ditch is shown in **Figure 3.9 Stantec Wetland Boundary Map**.

3.17.4 Ground Water

Ground water is water that is below the surface of the ground within the spaces between soil and rock formations. Ground water quality is primarily governed under the SDWA administered by the EPA. The study area for ground water includes all areas where the ground could be disturbed by construction of the Preferred Alternative, where impervious surfaces could change rates of ground water infiltration, where airport operations could increase spills or leaks, and where construction vehicles and other equipment could potentially impact ground water due to staging, machinery, storage, and spills.

In evaluating ground water resources in the project area, the following databases were reviewed:

- EPA Sole Source Aquifer for Drinking Water Database and Mapping Tool
- *IndianaMap* Geospatial Open Data Portal
- IDEM Source Water Proximity Determination Tool

The EPA maintains a database of groundwater sources that serve as the sole source of drinking water for a population. According to the EPA, the project area is not within a Sole Source Aquifer for Drinking Water.

According to *IndianaMap* Geospatial Open Data Portal, no drinking water wells are within the limits of proposed construction of the Preferred Alternative (see **Appendix I – Ground Water**).

Wellhead protection areas represent the land surface area that contributes ground water to wells serving public water supply systems throughout Indiana. Wellhead protection areas define a landscape in which management strategies are employed to protect public water supply from ground water contamination. In Indiana, data regarding wellhead protection areas are unavailable online, as this information is confidential. However, IDEM provides an online Source Water Proximity Determination Tool that can be used for site specific inquiries regarding whether a site is located within or outside of an IDEM-approved wellhead protection area. According to this tool, the project area is not within a wellhead protection area (see **Appendix I – Ground Water**).

3.17.5 Wild and Scenic Rivers

Wild and Scenic Rivers are those resources that have extraordinary scenic, recreational, geologic, ecosystem, historic, or cultural value as defined in the Wild and Scenic Rivers Act (16 U.S.C. §§ 1271-1287). The Wild and Scenic Rivers Act creates a national system intended to preserve certain rivers in a free-flowing condition for current and future enjoyment. The national system is administered by the Bureau of Land Management (BLM), the National Park Service (NPS), the USFWS, and the United States Forest Service (USFS). The land surrounding a protected river or river segment determines the agency that administers the national system.

The Nationwide Rivers Inventory (NRI) is a list maintained by the NPS that identifies river segments that possess remarkable natural or cultural values and are of more than local or regional importance. All federal agencies are required to avoid or mitigate impacts to NRI segments.

According to the National Wild and Scenic Rivers System and NPS websites, no rivers in the National Wild and Scenic Rivers System or listed on the NRI are in the project area or in the vicinity.